THE NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE, HORTICULTURE, AND KINDRED ARTS.

NEW SERIES. Boston, August, 1868. VOL. II.---NO. 8.

R. P. EATON & CO., PUBLISHERS, OFFICE, 34 MERCHANTS' ROW. MONTHLY. SIMON BROWN, S. FLETCHER, } EDITORS.

WORK FOR AUGUST.

HAYING is now completed, except on the wet meadows. The crop of upland hay has been abundant and the most important means of carrying the stock through another winter is thus secured. The fodder corn to keep up the flow of milk, is now coming into use, and those who have provided a good supply of this, will find the advantage of it. This is much better than feeding off the second growth of the mowing lots. The grass in the pastures, even, if not short, is less succulent and juicy, and will yield less milk than it did in June, and there is no better substitute, nor one more easily obtained than corn; the use of which for fodder is extending, even in the West, where we see by our exchanges that the cultivation of it is recommended.

The grain is mostly secured, and the crops generally throughout the country have been bountiful. But the farmer's work is not done, for as he works not only for the present, but for the future, he must not only secure the harvests of the present year, but be preparing for years to come. Much of the work of this month and the next must have reference to the future.

This is the best month for ditching the low lands, as they are now comparatively free from water, and for laying drains where they are needed; also for throwing out a supply of muck for compost during the coming winter,—thus managing so as to kill two birds with one stone. Use the muck from the ditches for the compost heap, and thus avoid the old ditch banks, that used in former times to disfigure the meadows.

The hay of the wet meadows has been less valued of late years, especially by the milk farmers than formerly, and consequently the meadows have been neglected. But such hay is valuable, if cut in season, for young stock, and for dry stock, and as a resource when English hay is short. By proper ditching, much of it may be greatly improved in quality. No prudent farmer will neglect his meadow lands.

But whether the muck is obtained from ditches or not, see that a good supply is thrown out, and placed in such a position as to be easy of access at all seasons. There is nothing that will add so much, and at so cheap a rate, to the compost heap—and that is so valuable to our old and sandy soils.

Nature has made wonderful provision for the wants of man, which he will gradually learn to

avail himself of. She has stored up in the earth the carbon extracted from the atmosphere by vegetation in ages before man existed on earth, that he may now have a supply of fuel; and she is collecting the carbon extracted in more modern times, in the shape of peat and muck, that he may have the means of increasing and continuing the fertility of the soil, to supply the demands of an increasing population.

August is the best time to cut the bushes in the pastures, and many of our old pastures sadly need the bush scythe.

Weeds continue to grow, and the turnips and beets and carrots and late potatoes must not be neglected. The cultivator and hoe must be kept moving. Weeds allowed to go to seed will not only injure the present crop, but make work for next year.

Preparation must also be made this month for fall seeding to grass. We like to get in the seed about the last of the month, that it may get well rooted before the ground freezes. Plough the sod eight or nine inches deep, dress with compost, and harrow it in thoroughly, then sow the seed, and harrow again, and roll, and you will not fail to get a good catch. This practice is becoming very general, and when done *seasonably* and *thoroughly*, is found to be the best way.

Most of the operations to which we have referred above, have reference to the future. The farmer must be a man of forecast. To-day is all he can call his own, and to-day he must work for to-morrow, for next year, for all coming time,—and for eternity, too.

WOOL BUYERS' RULES.

After the National Wool Growers' Association abandoned the idea of holding an Exposition or Fair of sheep, wools and woolen goods, the idea was taken up by a society known as the Northwest Woolen Manufacturers' Association, which met some months since in Chicago, and they invited wool growers of that section to join with them in this Fair which is to be held in Chicago next August. But the adoption of certain rules for buying wool, generally known as the one-third shrinkage rules, by this association last spring, which were regarded by farmers as unjust and improper, so offended the wool growers that they have indignantly refused to co-operate with this association in the proposed exhibition.

We now learn by the *Prairie Farmer* that the Executive Committee, of which the President of the Association is Chairman, instead of calling a convention to rescind the obnoxious rules, has caused the following resolution to be sent to each member with a request that it be returned with a yea or nay vote:—

Resolved, That the rules adopted at the convention, in February, 1868, governing the members of this Association, in buying wool, are hereby rescinded, and members left free to purchase wool on its own merits.

Little doubt is entertained as to the result. And the *Prairie Farmer* thinks that two weeks will be sufficient to enable the President to announce the repeal of the buyers' rules, and adds "When the certain news of it arrives, we can rejoice and bury the hatchet, and prepare to smoke the pipe of peace at the Chicago exhibition next month."

For the New England Farmer.

TOO MUCH OF A GOOD THING.

At first thought few persons perhaps will see the necessity of this caution, so far as improvements in breeding and cultivation are concerned; still it may be that a more careful consideration of a few facts may show that here, as elsewhere, there may be "too much of a good thing."

Every farmer is urged from every consideration and by all classes of men in almost every position in society, to push on his so-called "improvements;" to strive for higher developments, and still greater production of stock, fruits, and vegetables, as if there was no limit to such improvement, development and increase. That there is such a limit we are compelled to admit, from the irrefragable experiences of the past score of years.

Very few men can be found on whose judgment we incline to rely, who will assume the position that the developments of the so-called good points and qualities of our horses, neat stock, sheep, swine, and even poultry, may not be carried to excess,—may not be pushed over that line. If we are to credit the statements that come to us from across the water, their trained turf horses are not as long-lived as formerly, and are more difficult of further marked improvements.

Who does not know that all our so-called improvements will surely revert to their former condition unless prevented by constant vigilance and skill! This law of nature,—for a law it is,—will assert its power as such, as soon as we slacken our efforts to perpetuate our "improvements."

Our large portly Durhams, beautiful intelligent Devons, mild, silky, creamy Aldernies,

and the almost invaluable Ayrshires, will inevitably deteriorate, and, much sooner too than most are aware of, will return to their normal state.

The fatal diseases that have already created such fearful ravages among cattle, may have had their origin in the unnatural development that breeders have sought for with such great success. There is surely a point beyond which it is not safe to pass. Rinderpest or some other form of disease is sure to confront us and warn us to go no farther.

The dairyman desires to make the most *money* out of his cow. He stimulates her milking properties by stimulating food and warm shelter, so that she becomes, as it were, a green-house plant, incapable of withstanding the slightest exposure. Her progeny of course will, to a still greater degree, partake of this lack of vigor, and only a few generations will be required to develop a sufficient want of functional power to perpetuate their species. We see this principle manifest on every hand, in what we term civilized society. The pampered child of plenty becomes enervated, diseased, unfruitful; while the poor have a heritage of children and the mother an abundance of *nature's* food for their sustenance. I once saw an Indian mother with her infant lashed to her back pass up her well filled breast over her shoulder to the child, who greedily siezed the coveted food as if it was no uncommon occurrence to feast in that position.

It is not, however, in this direction that I proposed to push this question, so very interesting to all farmers. This same principle not only applies to men and animals, but to fruits and vegetables. May we not find here one cause of the failure of many of our fruits for some years past? It is a well known fact to many now living, that parts of our country where the apple, peach, and plum formerly yielded abundantly, now fail altogether or partially to produce these fruits. The first settlers planted orchards, and without *nursing*, gathered an abundance of fruit from them. But *we* must wage a constant warfare and give the most untiring care if we hope to secure even a tithe of what our fathers had almost without an effort.

Our potatoes appear to suffer more than any other vegetable we cultivate, and no doubt from the fact of its being about the only one we propagate from the tuber, and not from the seed. Some years since, in a communication to the FARMER, I asked the question if we were not to ascribe the disease that then was comparatively new in this part of the country, to this cause, and assumed it as the only true hypothesis. I still adhere to the same view. Not one fact has come to my knowledge invalidating this position, while all subsequent developments have served to fortify it. The fact that they do not rot so badly in a dry season as in a wet one, only shows that the disease is not as fully developed by dry as by wet weather. The very fact of their rotting at all proves that the disease is in them. We have fed them up with such surfeits of manure as to destroy their healthy functions, and can never restore them again to health and vigor by propagating from the same stock. Disease is now in the tuber, and the seed derived from it must of necessity partake of that disease. Our only remedy is to commence, where those did who first introduced its culture, with seed or tubers from the plant in the wild state. K. O.

Broad Brook, Conn., 1868.

For the New England Farmer.

FENCING.

The importance of fences to farmers must be my apology for again reverting to this subject. I should like to see a good thorough discussion, not only of the economical advantages of good fences, and of the best and cheapest modes of construction and repair, but of their moral influences. Bad fences are among the worst characteristics of bad neighborhoods. Many of the petty estrangements and enmities, as well as most of the more violent animosities, quarrels and law-suits which are too frequent in agricultural communities, originate directly or indirectly in poor fences. No class of citizens probably suffer so much from want of co-operation and social intercourse, and none need to guard so carefully against every thing which tends to prevent such co-operation and neighborly good will as farmers. With the remark, that I regard good fences as great peace-makers in a neighborhood, I leave the question of their moral effect on the character of both man and beast, to those better able than myself to express their thoughts, and will merely offer a few practical suggestions.

The materials of most of the fences on my farm are boards and posts. A part of my farm is a gravelly and part a clay soil. I find that longer posts are needed on the clay than on the gravelly land. On the clay soil they should be set in the ground from two and a half to three feet deep, and the earth should be tamped very solid when setting them, so that each post shall stand as firm as though it grew there, and not be liable to be thrown out of place by the frost.

I have always thought that it would be better if our pastures were fenced into lots, so that different kinds of stock could be kept separately if desired, or changed from one to another, at pleasure. I have therefore this season drawn the lumber for dividing my old pasture into three separate lots. I find that the building of the fences necessary for this is to be attended with a good deal of labor and expense, and I solicit the opinion of experienced farmers as to the question, Will it pay?

I prefer gates to bars; indeed I do not

think farmers can *afford* to use bars, though I have them in some places. For posts I prefer stone. I set the post on which I hang the gate some five feet deep, to be sure to have it beyond the effect of frost. The irons on which the gate hangs pass through the post, and also through the wooden upright of the gate, and are held with nuts on both ends in such a manner that the gate can be raised or lowered by turning the nuts. I have two other stone posts, in each of which I drill a hole for an eye and hasp, one for holding the gate when shut and the other when open, with corresponding staples in the gate post. The post to hold the gate open may be made shorter than the other. The wood part of the gates is made of hemlock and red elm.

I have now on my farm two gates that were built twenty-six years ago. I do not mean to be understood that all my gates wear as well, for in some places I have had to make two gates in twenty-six years. The durability of gates as well as of every thing else depends much upon the materials used and the manner in which they are built. The secret of success in all business is thoroughness. And the reason that gates are so often unsatisfactory in their operation and durability is that they are not made strong and well.

In passageways much used in winter, where there is no danger of being troubled by animals, as there seldom is when the snow is deep, I take the gates off the hinges and set them up against the side of the fence. The gates are again hung upon their hinges early in the spring. The barn-yard and other gates that are used during the winter are hung about one foot from the ground, and when necessary to shut out small animals, a board is put at the bottom.

O. Foster.

Tunbridge, Vt., June 21, 1868.

For the New England Farmer.

GIANT CACTI.

In a late issue of the *Evening Transcript* there was as an item of news, a statement that in Arizona there had been discovered a variety of the cactus, growing forty or fifty feet high.

Of that extraordinary plant I have some knowledge, as while engaged on the United States and Mexican Boundary Survey, a few years since, I traversed, in various directions, the region where it grows and made the most careful drawings of many of these plants. It is the *Cereus Giganteus*, and is found along the borders of the great desert regions which run through the western parts of New Mexico, Arizona and the State of Sonora in Mexico, growing on dry gravelly lands, where there is seldom any rain and no dew. It is found sometimes of the size of a large tree, fifty feet high and three feet in diameter, with many branches. In cutting them open we find about three inches of the outer part of ordinary columnar cacti; then comes a portion of hard, woody substance, in appearance and quality like white oak timber, occupying about one-third of the diameter, and in the centre is a hollow.

The fruit is about two-and-a-half to three inches long, filled with a very sweet pulp like that of a fig, and many very small shining black seeds. The outside skin is not eatable. The flowers are white, waxy, two and one-half inches in diameter, with a deep calyx, making the whole trumpet shaped. The fruit is gathered by the Indians and Mexicans, and is considered a great delicacy.

This cactus must have been well known to the Spanish and Mexican people ever since the settlement of the country, as we found it around the old mission settlements, through nearly the whole length of the State of Sonora; and yet it had never been properly described or illustrated until our party gave attention to the subject.

The Horticultural Society have a landscape, painted by myself, and presented them by our lamented friend, L. M. Sargent, Esq., comprising "A View of Magdalena in Sonora," which affords a correct idea of this and other cacti, as they are now growing in the vicinity of that place.

I have also at my studio a painting which gives a portrait of one growing on the Maricopa mountain near the Gila river, showing the plant, the flowers and fruit, being painted of the natural size and color, which, with other western scenery, I am happy to show to any persons who wish to see them, at No. 8 Bromfield Street, over the new establishment of Messrs. Williams & Everett.

Boston, June 27, 1868. H. C. Pratt.

North Carolina.—Mr. W. A. Sampson, who is located at Bush Hill, N. C., writes as follows to the *Maine Farmer*:—"The climate here is delightful, and everything for the comfort of man can be successfully grown. I may name figs, peaches—the finest in the United States—apples, pears, plums, cherries, and all the small fruits, wheat, corn, and all cereals. The only thing lacking is grass. No cultivated grass is to be seen, except upon the meadows along the valleys of the many streams. The water is the purest and the timber the finest of any in the country. White oak and hickory abound of the best quality; also walnut, which is largely used for furniture. The hard pine is accessible at $15 per thousand. The people are all anxious to see northern emigration. Land is very cheap; from $2 to $15 per acre.

—The Devons are natives of Devonshire, England, from which they take their name. This breed is one among, if not the oldest of the improved English cattle, and until the present century, was bred with greater purity than any other breed.

THE BUTTONWOOD TREE.

(*Platanus Occidentalis.*)

HIS was once one of the most beautiful and magnificent trees of the American forest. It is indigenous in all parts of the country, and is found generally on the shores of lakes and the banks of rivers and creeks, where it flourishes with surprising vigor and often attains a majestic size. On the rich alluvions of the West, it is often of an almost incredible size, and presents a luxuriance of vegetation truly surprising, and beautiful to behold.

It is sometimes known by the appellation of plane and sycamore, and is often planted for ornament as well as use. For fuel it is deemed less valuable than oak or hickory, or even maple, but it is superior to most of the lighter woods. It is quite durable, firm of grain and texture, and when used for cabinet work presents a close surface, capable of a beautiful polish.

This tree may be propagated with ease from the seeds or balls, and when once it has taken root, perpetuates itself by throwing up, spontaneously, innumerable suckers from the roots or stools of the trees. As many as six or eight trees have been known to proceed from one stump, and, on rich land, to attain a size sufficient for fuel, and even for mechanical purposes.

In his "*Forest Scenery*," Gilpin says "no tree forms a more pleasing shade than the occidental plane. It is full leafed, and its leaf is large, smooth, of a fine texture, and seldom injured by insects. Its lower branches, shooting horizontally, soon take a direction to the ground; and the spray seems more sedulous than that of any tree we have, by twisting about in various forms to fill up every little vacuity with shade."

In his "*Trees and Shrubs of Massachusetts*" Mr. Emerson says "there was standing in 1839, on the island of Rhode Island, a buttonwood tree, which measured at one foot from the ground, twenty-four feet four inches," and had then the appearance of perfect vigor.

We once saw one on the banks of the Muskingum river in Ohio, which was *fifteen feet in diameter!* Or as large through as a common sized room! It was broken off about thirty feet from the ground, but had branches below the break large enough for good-sized trees. The trunk was hollow, having a shell perhaps two feet thick all around it. On the south side, next the river, an opening had been made about the size of the doors of our houses, say about six and one-half feet by two and one-half. As we entered this door, a small drove of hogs rushed out through *a hollow root* on the opposite side.

After speaking of the decay of the buttonwood in several parts of Europe, between the years 1809 and 1814, Mr. Emerson says:—"The buttonwoods, throughout New England were affected in a similar manner in the springs of 1842, '43 and '44. The shoots seemed to have been nipped as by a frost. The large trees were particularly affected, but by no means exclusively. For some weeks in each of these springs, many of the trees seemed to have been killed. The extremities of the branches, on almost all the buttonwoods are dead, and many of the trees are now, in the fall of 1845, completely so."

The malady in this tree has been attributed to various causes. Some say by frost; others the action of some insect or worm. It seems to us that it is caused by some general taint, some infectious disease, that has traversed, like the cholera, the world over wherever the buttonwood tree is found. The destruction has been steadily going on since 1845, until the trees that are left present a melancholy aspect. They look prematurely old, their foliage is thin, discolored and imperfect, their branches are broken, dead or dying, with every appearance of rapid dissolution.

Shall we suffer these old friends and worthy monarchs to die entirely out, or shall we make an effort to revive the old trees, or supply new ones? For ourself, we are looking upon their departure with some emotion; with something of the feeling that we part with a venerable old friend who has always been blessing the world with his good works.

—There are complaints of the appearance of the wheat midge in Ohio, Michigan and Indiana.

JOE FICKLE.

A correspondent sends us a "true narrative" in verse of this young man, who, having finished his season's engagement with a farmer who did not keep a hired man during the winter season, fell into the following soliloquy:

The winter's come; my time is out;
The man wants me no more;
I have not where to lay my head;
It's hard to leave his door.

This naturally excites our compassion for the poor outcast, and we feel relieved when informed that

There is a man not far away,
That hires men by the year;
I'll go and see what I can do—
He may think me sincere!

But most unfortunately for our hero this man happened to know just what a Fickle Joe was—we may as well, you know, out-run our shadow as our character—and told him plainly that he could not trust him; he wanted a man that would not leave him after "being wintered out," which he thought was all that Joe "cared about." But Mr. Fickle was not to be bluffed:

Once, twice, and thrice, I went, and more;
I promised to be true,
With many a fair and honest word,—
He took me for true blue.

But the Fickle blood was in his veins:

When summer came, when grass grew fast,
And haying was near by,
When wages, too, were coming up,
For more, sure I did try.

I knew 'twas wrong to go away,
For I was treated well,
And for some reasons I did look,
To make it fair to tell.

And in some six or eight stanzas he gives the result of his attempts to find these reasons in the treatment he received from his employer and his family, which were quite unsatisfactory, until he happened to remember:

The girls they laugh at me about
The young and fair-faced Lu,
I will not stay another day
Where I am treated so!

And he did'nt.

A WORD TO THE BOYS.

It is now haying time, a season of the year when all hands must be lively. You will be called upon to drive the horses for the mowing machine and rake. Don't be too rash with them. Let everything move along steadily and smoothly. No machinery can go by jerks without being destroyed. Be up early in the morning so as to work as much as possible in the cool of the day, and go to bed as early as possible and secure all the sleep you can. If you are learning to use a hand scythe don't whet it over your shoulder but under it. A slip of the snath may spoil your shoulder. Take good care of the hand rakes and forks. Learn to stow a load of hay well, so it shall look in good shape and ride over rough ground without being thrown off with you beneath it. Learn to do your light work nimbly, your heavy work slowly. Whatever you have to do, try and do it as well as anybody else, if you cannot do as much. Rapidity of motion is secured by first carefully watching the motions of things. Keep an eye on the garden and pull up the weeds and give them to the pigs. It promotes their health and growth. Lastly, remember that you are now laying the foundations for a solid manhood. A boy that works well through haying will be likely to thrive anywhere. —*Maine Farmer.*

Remarks.—And permit the New England Farmer to add, that while doing all you are here exhorted to do, remember that you are learning a great trade, and studying the most important of all professions.

For the New England Farmer.

THE GARDEN IN AUGUST.

After a long, cold and backward spring, the later heat of summer hurries vegetation forward with a rush; and August brings us our usual garden harvest. Although we may have been almost discouraged in the earlier part of the season, yet all was necessary to lead us up to the present appreciation and realization of fresh vegetables every day from the garden, crisp and tender; a blessing which the dwellers in cities seldom if ever enjoy. How many, suppose you, "Billy Styx," of the dwellers in such cities as Boston, New York, &c., ever tasted green peas? or, as to that, fresh, green, vegetables or fruits of any kind, such as you have, or may have the privilege of doing every day through the hot season? Just try the experiment of taking any favorite product of the garden and handle it, not very carefully, six or eight times from basket to box, and box to basket, and expose it to the sun several hours before cooking and being brought to the table, and you may, in part, realize what *fresh* vegetables mean in cities. Compare such with those right from the garden, while yet they are fresh, crisp, and shining with the dews of an August morning, and you will soon learn to appreciate the real thing.

All who started with the early spring to have a good garden are now enjoying the fruit of their labor. He who has a well kept garden may not only rejoice in the nice fresh products which supply his table daily, but he often has a surplus to sell to the less provident, or give to the feeble, or decrepid who cannot provide for themselves with equal facility. Farmers who live within easy distance of cities or villages, may add considerable to their income by enlarging the garden and producing vegetables, small fruits, &c. for marketing; and leave the production, in part, of large grain

crops, &c., to those living at a greater distance from market. All vegetables designed for market should be gathered either late in the afternoon preceding, or early in the morning they are to be marketed, so that they may remain out of the ground as short a time as possible before they are used, and then they should be carefully handled, and kept shaded from the sun. While enjoying the varied products of the garden, we should not forget to provide for the future in the way of seeds. Too often this is neglected till all the earliest and best specimens are gathered, and only the leavings and scallawag products remain for the production of seed for future use, or none at all is saved. Now, as "like" is said "to produce like," we may not expect to get handsome, early products unless we save seed from the like; and it is always better for one to grow most of his own seed than to depend on any other source of supply.

Asparagus.—Keep down all weeds, and encourage the plants to grow to recover from the effects of the cutting season. If seed is desired, gather when perfectly ripe, and separate from the pulp, and either sow at once, or dry and lay it away till spring.

Beans.—Gather for the table as fast as they come to suitable age, and see that running sorts are kept to the poles. Some of the bush sorts may still be planted for late use, pickling, canning, &c.

Cabbage.—Savoy and red cabbage, set during the month, will head before winter. Use the hoe freely among those already set, to encourage growth and setting for heads; and destroy slugs and caterpillars.

Cauliflower.—These need very frequent hoeing, and should not be allowed to suffer for want of water, in order to have them produce fine heads, or flowers; use those that come into suitable size, or they will soon run up to seed.

Corn.—Select a few of the earliest and handsomest ears, and mark them with a ribbon or string tied to the stalk, and let them ripen for seed. Use others as fast as they come to suitable size; dry for winter and future use.

Cucumbers.—Those planted late for pickles will need hoeing to keep down the weeds, and we may look for pickles during the month, which should be picked close every other day. Save seed from the earlier crop and observe directions for seed cucumbers given last month, with the pickle patch, if desirable to save more seed.

Egg Plants.—The fruit is apt to get down in the dirt unless prevented by something placed under it; a little hay or straw will serve a good purpose. Destroy caterpillars wherever they may be observed eating the foliage.

Herbs.—As these come into bloom, continue to gather and cure in the shade, away from dust, and store to preserve their aroma.

Melons.—The ripening of melons may be hastened and their flavor improved by placing a clean shingle or stone under specimens, and turn them over occasionally, so that all sides may receive the sun and ripen equally.

Radishes.—Such as the black and white Spanish, salmon and turnip-rooted, and Chinese rose-colored winter, for late fall and winter use, may now be sown.

Strawberries.—Keep the runners cut, unless desirable to let them grow to form new plants. Old beds may be renewed by manuring and spading up strips through the old bed, leaving a row of plants to throw off runners to cover the new bed. Keep all beds clean of weeds and grass.

Tomatoes.—Those trained to a trellis, or on something to keep them from the ground, will do much the best. If trained to a trellis, keep them tied up, and pinch off the ends of growing branches after the fruit has beg unto set, to encourage ripening and increase size of fruit.

Plant, for a succession, wherever any early crop has been removed, or vacant places occur, lettuce, onions for pips and wintering over, spinach, turnips, &c.; gather and save all seeds as they ripen; and let the flower beds have a proportion of attention commensurate with the gratification and pleasure it has produced. W. H. White.

South Windsor, Conn., 1868.

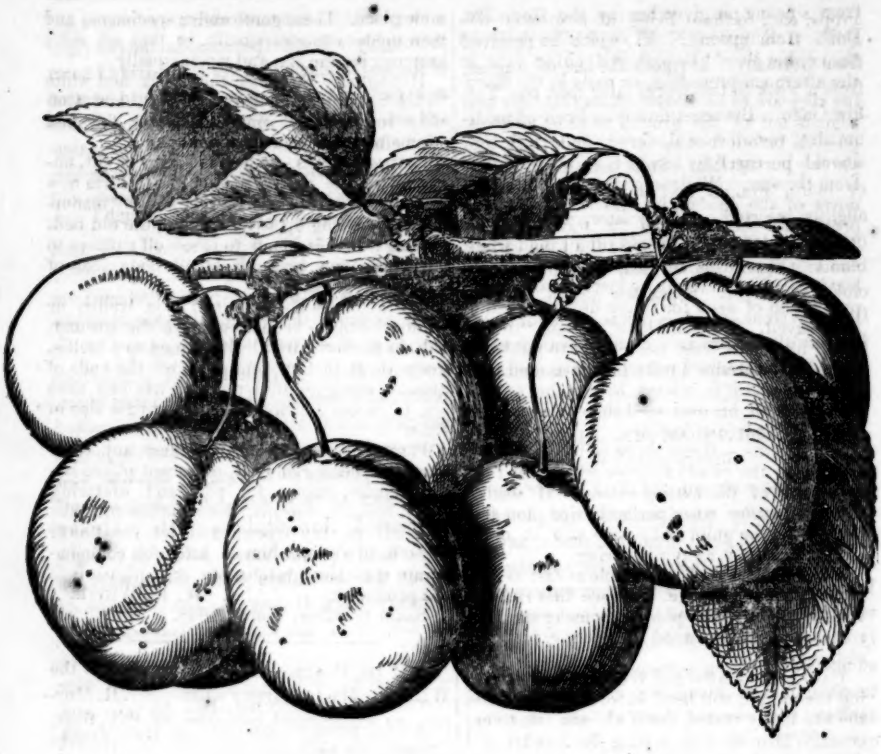
List of Pears.—At a late meeting of the Waltham, Mass., Farmer's Club, Mr. R. Murray, an experienced cultivator of this fruit, recommended the following varieties, remarking that he considered the Beurre d'Anjou the king of pears:—

For Standards—Bartlett, Seckel, Winter Nelis, Lawrence, Sheldon, Buerre d'Clairgeau, Swan's Orange.

For Dwarfs or Quince Stalk—Louise bonne de Jersey, Duchesse d'Angouleme, Urbaniste, Easter Beurre.

Either on Quince or Pear Stalk—Rostizer, Tyson, Dearborn's Seedling, Flemish Beauty, Beurre d'Anjou, Beurre Bosc.

How to Cure a Cold.—Dr. Hall (*Journal of Health*) says: The moment a man is satisfied he has taken cold, let him do three things: First, eat nothing; second, go to bed, cover up in a warm room; third, drink as much cold water as he can or as he wants, or as much hot herb tea as he can, and in three cases out of four, he will be well in thirty-six hours. The neglect of a cold for forty-eight hours, after the cough commences, is to place himself beyond cure, until the cold has run its course, of about a fortnight. Warmth and abstinence are safe and certain cures, when applied early. Warmth keeps the pores of the skin open, and relieves it of the surplus which oppresses it, while abstinence cuts off the supply of material for phlegm which would otherwise be coughed up.



BLEECKER'S GAGE PLUM.

What is the use of tantalizing us with cuts of plums, when everybody knows that the curculio destroys all the fruit, and the black knot all the trees? may be asked by the readers of the FARMER, as their eyes fall on the above illustration while unfolding its broad sheet. We are aware of the difficulties which for many years have discouraged the most careful and intelligent cultivators of this fruit in most parts of our country, but we believe that this seeming triumph of insects and disease is but temporary. When we think of our agricultural colleges, of our pomological associations, of our scientific men and of our skilful gardeners, we must believe that eventually the battle will be to the strong, the swift, and the industrious. Every insect and every disorder, like every dog, may have its day, but to man belongs the "dominion," and he will resume the sceptre and rule, as he should, "over the earth, and over every creeping thing that creepeth upon the earth." This we hold is our "manifest destiny." Our wheat is not to be given up to the weevil; our potatoes are not to be abandoned to the rot or the Colorado bug; nor is the curculio to have and to hold all the right, title and usufruct of the thirty-six different varieties of the plum recommended in the catalogue of the American Pomological Society, noticed in another column.

In this faith we present the above beautiful engraving of fruit raised by Mr. H. P. Wiswall, of Marlborough, Mass., and believe that the reader will agree with us in pronouncing the illustration a beautiful work of art, however faint-hearted he may be as to the possibility of re-producing its original.

Downing says it is a "fruit of the first quality; remarkably hardy, and a good and regular bearer. It was raised by the late Mrs. Bleecker, of Albany, about thirty years ago,

from a prune pit given her by the Rev. Mr. Dull, of Kingston, N. Y., which he received from Germany. It ripens the last of August, from a week to two weeks later than our Yellow Gage. Branches downy. Fruit of medium size, roundish-oval, very regular. Suture scarcely perceptible. Stalk quite long, an inch or more, straight and pretty stout, downy, slightly inserted. Skin yellow, with numerous imbedded white specks, and a thin white bloom. Flesh yellow, rich, sweet, and luscious in flavor. Separates almost entirely from the stone, which is pointed at both ends. Leaves dark green. Easily distinguished from Yellow Gage by its longer and stouter stalk."

LETTER FROM MR. BROWN.

BRATTLEBORO', Vt., June, 1868.

About one year ago, the *N. Y. State Agricultural Society* invited the makers of ploughs, in any State of the Union, in Canada, and in Europe, to bring their ploughs together at Utica, N. Y., and compete for certain prizes which the society offered. They had previously had one trial at Auburn, which developed so many interesting circumstances in relation to ploughs and ploughing, that the cost of another trial seemed justified, and was incurred. That trial took took place at Utica, N. Y., May 7, 1867.

At this trial, also, many developments took place with which most ploughmen were not familiar, and were all carefully recorded and reported in the Transactions of the Society. So far as contrasting the qualities of differently constructed ploughs was concerned, these trials were sufficient and satisfactory; but neither the objects of the enterprise, nor the character of the soil, were adapted to develop the powers of a good plough in very many particulars. Learning that the soil on the Connecticut river bottoms was such as the judges desired for a further trial, they wrote Gov. Holbrook, at Brattleboro', to secure a suitable field, furnish ploughs and teams and attend them in the trial. The grounds selected were a portion of a field of 150 acres belonging to the Asylum for the Insane, and quite near the village.

The judges, and principal managers in the tests that were made, were the Hon. JOHN STANTON GOULD, of Hudson, N. Y., a former president of the N. Y. State Agricultural Society, and HENRY WATERMAN, Esq., of the same place. These gentlemen are educated and thoroughly scientific persons, in the full vigor of life and intellect, and are extensively known as experts in most matters relating to science and art. I do not remember ever to have met before two persons so intimately acquainted with the principles that govern mechanism in all its forms. The State society selected them because they possessed these rare qualities, and commissioned them to make the most exhaustive trials with the plough. Two other gentlemen were present, both of whom have given as much thought to the plough as any two men that are living, namely: JOEL NOURSE, Esq., of Boston, and Gov. HOLBROOK, of Vermont. They assisted the judges, and gave minute attention to all the diversified changes which were introduced; and the judges found, in persons so thoroughly familiar with the subject as they were, great help in their complicated investigations. Mr. HENRY BROOKS, of Acton, Mass., held the ploughs during the three days' trial. Such were the operators. Mr. HENRY M. TUCKER, one of the Editors of the *Country Gentleman*, and myself, came to see, and to tell the world what we saw. Several other gentlemen were present who are interested in ploughs and ploughing, among whom was the Hon. JOHN S. KEYES, of Massachusetts.

The ploughs used were five in number, some one of which, it was supposed, would be adapted to any condition of soil where a plough would be called into use, and were all devised, I believe, by Mr. Holbrook. The trial was not, then, one to ascertain which of a great variety of ploughs is the best, but to ascertain,—

1. The relative increase of power required for each inch of depth ploughed, the width of furrow being constant in all cases.

2. To determine the amount of power required for each inch of breadth of furrow, the depth being constant in all cases.

3. To determine the relative power required by the coulter and skim plough.

4. To determine the portion of force required by each of the individual parts of the plough.

5. To ascertain the influence of velocity on draft.

6. To show the influence of the *adjustment of the plough* on draft.

As a general result, these trials showed the

importance of an accurate adjustment of the different parts of the plough with each other. It was found, for example, that when the tendency of the plough was to dip into the ground, and was resisted by the ploughman, such counteracting influence absorbed 150 pounds of power! When the adjustment was made so that the plough swam free, the aggregate indications of the dynamometer fell that amount. Even placing the coulter three-fourths of an inch out of the centre of draft, greatly increased the resistance and spoiled the perfection of the work. In one instance a coulter that was somewhat blunt and rusty, was rubbed with a scythe stone until it was bright and its edge sharpened a little, which decreased the power required in its rusty and dull condition some twenty-three pounds! The accurate adjustment of the parts of the plough invariably decreased the amount of power.

The labor of these experiments would have been comparatively fruitless had it not been for the service which the *dynamometer* rendered. This not only measured the power with great nicety, but measured the distances travelled over at the same time. It is the invention of Mr. Henry Waterman, of Hudson, N. Y., the gentleman of whom I have spoken in the former part of this letter. It has been tested in various ways and found accurate, so that it has been called into use on railroads, common roads, and in many other ways where power was to be measured. By it, it is ascertained that *seven* pounds weight will move a ton on the railroad, at a velocity of ten miles per hour; on a Macadamized road 60 pounds, and on a common road 260 pounds per ton. The changes which continually occurred in this wonderful machine, when the plough left a light for a compact soil, or came where bunches of small roots were interlaced in it, proved it to be sensitive in the highest degree. It only needed an hour's watching to ensure perfect confidence in its truthfulness.

Some of the results of the work were surprising and exceedingly gratifying. The first experiment with a plough was to find its "surface draft"—that is, how much power was required to haul it along, standing on its sole, on the surface of the ground. The largest plough required ninety-nine pounds. It was then intended to plough one furrow one inch deep, and then increase an inch in depth and an inch in width, until a furrow twelve inches deep and eighteen inches wide had been turned. This was done, but commencing with three inches, as it was found impracticable to plough only one inch. Nothing could exceed the fineness of the particles as they lay. No skill in spading could reach it. It was a perfect seed-bed, only needing a little leveling to receive the finest seeds ever used. A succession of experiments followed this, during nearly three days of the closest application, but I must not detail them here. Mr. Gould will make a full report from his ample record, when I hope to refer to them again.

I began to plough in boyhood, and with some intermissions, have continued it to this day; thought I comprehended it, in part and in whole, and understood about how much and what quality of work it was capable of performing. But witnessing these tests has proved that my ideas were comparatively crude and imperfect, and shown that the plough is governed as much by scientific principles as the jenny or the loom, and is as sensitive as these to any departure from such principles. It seems to me that but little more is to be done to perfect the ploughs which were used in these tests. Some of the principles that have generally prevailed in all ploughs heretofore, have been entirely reversed, such as changing the face of the mould-board from a concave to a convex form, and so shaping it as to twist the furrow-slice until it is broken into innumerable fissures or cracks.

All the reports of Mr. Gould, on this subject, ought to be published and put into the hands of every farmer in the land.

A few examples from my notes will show the nature of the tests. The object was to ascertain the *amount of power* required in ploughing at different depths.

Swivel plough,	No. 4,	6½	inches,	. . . . .	557 lbs.
"	"	"	" 7½	"	. . . . . 584 "
"	"	"	" 8	"	. . . . . 641 "
Same plough, to ascertain power required without a cutter, 6x13 inches,					. . . . . 432 "
Coulter 1 inch in the ground,					. . . . . 505 "
Within 3 inches of the plane of the sole,					. . . . 504 "

Plough No. 69, weighing 165 pounds, surface draft, 99 pounds.

No. 65, Lap plough, 77 pounds, and with a furrow 2½x11 wide, required a power of 324 pounds; and at 8x11, 552 pounds,—the cutter in all being set for flat furrows. A lap

furrow required 42 pounds less power than a flat furrow, and on sharpening the cutter and giving it more rake, the draft was further reduced to 453 pounds in a furrow 8x11 inches, showing that the lap furrow required a less power by 99 pounds than a flat furrow.

No society in this country is doing more to promote the interest of agriculture than that of the State of New York. It is a power in the land for good. Great credit is due it for instituting these valuable experiments. These followed on the heels of those relating to mowing machines, and will undoubtedly be succeeded by others equally valuable and interesting.

I have enjoyed these opportunities greatly, and am truly yours,, SIMON BROWN.

P. S. Before leaving town, RICHARD BRADLEY, Esq., took most of the party over one of his farms, where I saw the most extensive and complete example of irrigation that there is, probably, in New England. I hope to speak of it more particularly at some future time.

THE END OF THE HORSE.

When the horse falls, he is bled, and his blood is preserved for the use of the dyer. The mane and tail are next cut off for the manufacturer of seives, hair cloths, and bow strings for the violin; the shoes are taken off for the nailer; the hoofs are cut off for combs and various other kinds of horn work, and a portion of the feet goes to the glue maker; the skin is stripped off for the tanner, who converts is into excellent leather for boots, harness, &c., and the collar-maker finds it in its rough state, the best material for cart harness. The flesh is then cut up for carnivorous beasts in menageries, or for dogs, and though without knowing that they are (hippophagi,) a club of horse eaters, who regularly advertise their club days, some of our fellow creatures are regaled in the cheap eating-houses of great cities with delicate bits of carcass in the form of *pates*, pretended beef steaks or soup. When the flesh and fat have been removed, the stomach and intestines are laid aside for machine straps and strings for musical instruments, and are often sold for the latter purpose as the best Naples cords; the ribs are turned into buttons and children's toys; the large round bones serve for tweezers, whistles, ferules, knife handles, cups and balls, dominoes, &c., the large flat bones are of use to the toy men for many things; even the teeth are useful when polished, to the dentist, and for many purposes for which ivory is required. The bones of the head are either consumed in heating furnaces, or crushed for manure.

The remainder of the carcase is burnt, and by this process produces ivory black, soot black, and valuable manure. And from the fat is extracted a coarse oil, which is used by mechanics.

MICHIGAN WOOL BUYERS' ASSOCIATION.

A meeting of this association was held in Detroit, June 2. By the report of its proceedings furnished by the *Western Rural*, we learn that the "established rules" are to be rigidly enforced by the association, as, among others, the following resolution was adopted:

Resolved, That we will buy wool only on these conditions, nor put any local or travelling agents in the market except upon the same terms, and that in any case of deviation from these rules, on the part of any such agents, we will withdraw them from the market.

In another resolution, surprise is expressed that a spirit of antagonism should be manifested or encouraged by any wool grower or dealer to the full adoption of these rules.

In his statement of the objects of the meeting, the president, Thomas McGaw, said "there seemed to be a determination among farmers to sell wool in a bad condition, for the same price as the best quality of wool should bring."

This accusation against wool growers appears to us to come with very poor grace from the president of an association which, by their own rules, insist on buying wool only on a principle which denies their agents the privilege of discriminating between the bad and the good.

The mutton butchers of Faneuil Hall employ "travelling agents" in the Western States and in Kentucky to buy sheep for their shambles. But whoever heard of any other rules for buying "heavy bucks," fat wethers, or half fed sheep, than the exercise of a sound and trained judgment as to the value of each particular flock? Why, then, should the manufacturers of wool expect, by any set of arbitrary rules, to avoid the necessity of employing, as their "travelling agents" for buying wool, men of skill and experience? The dro-

ver pays according to quality, why should not the wool buyer?

The object of the association is declared to be the attainment of "a higher standard and improvement in quality and condition of our Michigan wools." But instead of doing this by grading prices according to "quality and condition," they adopt a system that practically discourages individual efforts for improvement, by insisting on a fixed shrinkage for "greasy and gummy buck fleeces," for "heavy washed buck fleeces," and for all other "unwashed or partially washed, &c., fleeces," whether the foreign substances in them amount to 30 or 70 per cent. of the gross weight.

Large Steers.—About one year ago our correspondent, "B. D. W.," sent us a brief notice of the stock of E. D. Works, Esq., of West Fitchburg, Mass., in which he alluded particularly to a very fine pair of yearling Durham steers, which then weighed 1800 pounds. Having again "swung round the circle," our correspondent has recently visited his pets again, and writes that these steers, now two years old, weighed 2700 pounds before being turned out to pasture, and that he believes, with their owner, that by next Fair time they will balance a 3000-pound weight. Mr. Works has also a pair of native two-year-old steers, weighing 2100 pounds, which are thrifty and fine cattle, and away from the Durhams, would be considered a very extra pair. In view of the fact that Mr. Works has been offered $300 for the Durhams and $200 for the Natives, "B. D. W." asks, does not raising good stock pay? This question he respectfully submits to the calculation of those who know the value of calves and the cost of feeding and caring for them two years.

Milking Machines.—Mr. Benj. Chase, of Auburn, N. H., writes to the *Mirror and Farmer* that he purchased a machine, paying $7, and $5 for the patent. He tried it on an easy milker, and after a good deal of effort succeeded in getting it adjusted on the cow's teats, and by working it could draw some milk, but by the time the cow was half milked the teats would not fill the cups, and the machine would drop off, there being no suction. He wrote to the agent stating the difficulty, and asking to be referred to somebody who had one in successful operation. The agent replied, giving no reference; but saying that he must persevere, for it required a good deal of practice to learn to use one. He and his hired man tried until they had exhausted all their mechanical talent, but without success. The machine is offered for sale at a large discount.

For the New England Farmer.

WHAT SHALL FARMERS SELL?

Shall we sell our hay and grain, or buy stock to consume it? Winter Care and Feed of Milch Cows. Abstract of a discussion of the Irasburg, Vt., Farmers' Club, by its Secretary, Z. E. Jameson, Esq.

Wm. L. Jameson said it had been his practice to sell some hay every year; yet his crop constantly increased, and his farm is in better condition than when he bought it. He believed it will pay well to buy stock to winter and sell. He once bought three cows in the fall, and the butter made from them and the increase of price was forty dollars on each cow. Another winter he contracted his butter at twenty cents per pound, and made from four cows eighty dollars worth to sell, and estimated that twenty dollars worth was used in the family, which would be one hundred dollars for wintering, without including the value of the manure. This spring he fed his cows two quarts of meal, —oats, barley and peas ground together—each per day, in addition to their hay, and they averaged six and a half pounds of butter each per week. Some claim that they can get as much profit in milking cows eight months in a year as ten; but he said he knew it was not so. By going dry only two months, his cows do well the next year.

G. B. Brewster said when his brother and himself bought their place, they were in debt, and at first sold their grain, but never sold much hay. Now he believes it is better to feed the grain as well as the hay. Last fall he fed his cows fodder corn when the pastures began to fail, and it seemed to keep them in condition, after which they had the fall feed in his fields, and in winter good hay; so they have done well, except a few old cows that looked a little rough, but were in good heart. Toward the last of winter he began to feed two quarts of meal each per day. Four or five of his cows come in during February, eight or ten more in March, and others later, till he had about twenty, and within a few days two more have come in. He has raised thirteen calves that are turned to pasture, and has sold four hundred dollars worth of butter up to June first. Now, he would not say that he had done as well as he might, but he would say he had done $150 better than ever before in the same time. He thought it paid to feed well.

Wm. Jameson, who has made a half ton of butter from four cows in a year, remarked that

"the neighbors have often talked about the quantity of butter I made, but Mr. Brewster has found out the secret of it—feeding well in the fall! I begin to feed in the fall before any of my neighbors, and feed well all winter."

Wm. Locke, Jr., had bought another farm this spring, from which hay has been sold; and he had been advised to use plaster and still sell hay, but he should try the experiment of feeding his produce to stock. Had fed some meal this spring, and was satisfied with the result.

Z. E. Jameson suggested that as meat and butter will not satisfy every want of the farmers' customers, some of our other produce might be sent to the cities and villages, from which we could obtain fertilizers, such as poudrette, superphosphate, &c., if not stable manure, to assist in keeping up the fertility of the soil. If a man has a farm that can all be tilled, the produce of the pasture lands added to the produce consumed by animals in winter would go far towards bringing in as much income as the animals themselves, and then the farmer's work would be less, especially in winter. If the farmer feeds extensively, he must become a cattle dealer, which is a trade by itself that it will take time to learn.

For the New England Farmer.

FARMING AT WOOD'S HOLE---SINGULAR DISEASE AMONG CATTLE.

For several years past I have occasionally found myself at Wood's Hole, on Buzzard's Bay, about eighteen miles east of New Bedford, by the course of the steamer that touches here in going to and from Edgarton to the former place. Formerly it was a place of no small importance for its coasting and fishing business and at one time whaling vessels were fitted out here. These are now things of the past, and so far as I have learned, not a vestige of them remains.

The only substitute is an extensive establishment for the manufacture of Ammoniated Pacific Guano, which gives employment to sixty or more men, and furnishes a market for large quantities of fish, and also for fish pumice, from the oil works on the coast. This place has been held in high esteem by some as a place of summer resort, but can never obtain any great patronage as such without improved facilities for reaching it.

Joseph S. Fay, Esq., of Boston, has a farm of about four hundred acres, which for several years he has been *improving*—especially in attractiveness and beauty,—by planting evergreen and other trees, both of native foreign varieties. The Austrian and other foreign varieties of the pine grow much faster and are more ornamental than the native. Mr. Fay has upwards of one hundred acres of trees planted on various parts of the farm, some of which have been planted sixteen years and have attained a goodly size. Those interested in tree culture would do well to see his plantations, as they might afford them encouragement and instruction.

Farming here appears to be pursued under difficulties almost, if not entirely, insurmountable. This whole region abounds in hills and rocks requiring a deal of hard work to cultivate crops, which very often return no adequate remuneration, and sometimes entirely fail by reason of the ravages of worms. They not only destroy cultivated crops, but I see on every hand large tracts of pasture land as barren of grass as the travelled road. Root crops are exempt from their ravages, grow to great perfection, and might be made a source of income if judiciously managed. I ought, however, to state that the onion is an exception to the above statement, as it is subject to the ravages of the maggot that has about driven its culture from all this region.

A singular trouble is experienced in keeping neat stock all along the borders of this bay, from New Bedford east; and, I believe, to some extent on the *coast* west, for a few miles, which is especially annoying. Now and then there is an exception,—to account for which is as difficult as to give a reason for the general prevalence of the disease. What *causes* the disease is involved in mystery. It is known among the farmers here as the *neck-ail*, from its having first appeared in a section of the country known as the Neck.

The first symptoms are a disinclination to drink, followed by loss of appetite and consequently a loss of flesh, until the animal in many instances breaks down. No treatment practiced avails only temporarily. Physic and a dose of copperas affords relief, but only for a few months; after which it is of no avail. Animals when reduced to mere skeletons by this disease soon recover, if removed only a few miles,—often only to contiguous estates, back from the shore.

James LeBarron, Esq., of Mattapoisett who owns a large farm and usually keeps a large stock, has never had a case of this disease on his place, while his neighbors, on the southern boundary of his farm are never exempt from it. Diseased cattle when taken from his neighbors' farms on to his own, soon recover. I was told of a person, whose name has escaped me, who took the best care of his stock, who has long been subject to this trouble, while his next neighbors, on each side of his farm, have been exempt.

Some have supposed it was owing to the water, but that theory fails to be sustained. The cause, as already stated, is involved in perfect mystery. I have sent healthy oxen, bulls and cows to Mr. Fay's place, that in a few months would be troubled seriously. If some one could be found to point out the cause and cure of this disease, he would secure the gratitude of all this portion of the State. The hope that this may fall under the eye of some

such benefactor is the motive for writing this communication. K. O.

Wood's Hole, June 5, 1868.

WOOL AT THE CUSTOM HOUSES.

The following is the report in full of the committee appointed by the National Wool Grower's Association, with authority from the Secretary of the Treasury to examine the manner in which imported wools have been classified and appraised for the payment of duties in the New York and Boston custom houses, since the wool tariff, passed March 2, 1867, went into effect. The committee consisted of Henry S. Randall, S. D. Harris, Edwin Hammond, J. W. Colburn, Wm. R. Sanford, Winthrop W. Chenery, John D. Wing, Burdett Loomis, Leander Wetherell, and Wm. Chamberlain, who fully concurs in the report so far as the New York Custom House is concerned, but not being present at the examination made at the Boston Custom House he withholds any expression of opinion in relation thereto.

Mr. John A. Bausch, the Assistant Appraiser in the New York Custom House, having wools in charge, and Mr. Thomas G. Rice, General Appraiser in the Boston Custom House, having the same in charge, extended to the committee every possible facility for making a thorough examination, and evinced the utmost willingness to communicate all desired information explanatory of their official action generally or in particular cases, and also in regard to all facts tending to illustrate the practical operation of the law.

Both of these officers had put an official construction on the provisions of the wool tariff, in regard to classification and in other respects, corresponding with that put upon them by the Committee of the National Wool Growers' Association, who assisted in framing the bill; and accordingly they did not ask, in any case, to have the correctness of their official proceedings tested by any other standard.

Invoices of wool, on being entered at the custom house, are examined by the appraiser, whose business it is to classify them and appraise their value, in order that the legal rate of duties may be levied and collected on them. Every invoice is recorded in the books of the office, with the number and weight of bales, name of vessel, name of consignee, date of entry, etc., and the adjudged classification, appraisal and rate of duties levied are also recorded; so that the books furnish a full history of the official action of the department in every separate case.

In the examination of an invoice of wool by the appraiser, the bales are cut open, and samples taken from different parts of the bale indiscriminately and from enough bales to determine beyond a reasonable doubt the character and condition of all the wool embraced in the invoice. When wools of different classes are found to be mixed, or any indications of intended fraud are discovered, the examinations of the bales are made more rigorous, and more numerous samples taken from them.

The samples in the New York Appraiser's Office generally weigh from one to three pounds each, and in cases where, owing to a mixture of different wools, or other circumstances, doubts were entertained by the appraiser in respect to classification, etc., the samples are considerably larger. They are all put up in well secured packages, marked so that the particular invoice from which they were taken can at once be determined, and hence, by reference to the records of the office; they furnish satisfactory evidence of the appraiser's action in regard to each separate invoice of wool, and enable the correctness or incorrectness of that action to be properly reviewed. That is to say, they furnish such evidence unless it can be supposed that the samples are not what they purport to be, but are false ones substituted to cover up fraudulent classifications and appraisal. The official action of the appraiser is necessarily subject to the inspection of so many persons—official persons and others, including wool importers, keenly anxious to prevent other wools of the same description from going into the market with the advantage of being burdened with less duties than their own—that any attempted fraud in this particular would be subject to immediate detection and exposure. We believe no suspicions are entertained in any quarter that such frauds have been practiced.

The committee examined samples from every invoice of wool which has been entered at the port of New York from the day the wool tariff went into effect, down to May 20, 1868, with the exception of a few invoices,—not exceeding a dozen in all,—which were entered in bond, and which were immediately re-shipped to foreign ports without being landed. In such cases there was no object in the appraisers taking samples.

The examination made in Mr. Bausch's department, at New York, satisfied the committee that this experienced and valuable officer has faithfully executed his duties as wool appraiser, to the utmost letter and spirit of the law. Not an instance was found where a shadow of doubt was entertained by any member of the committee, in regard to the accuracy of any of his official decisions or acts.

The committee found that the wool appraiser's department at Boston was conducted on substantially the same system with that of New York. Here, too, the committee examined samples taken from every invoice of wool entered since the enactment of the wool tariff

down to the period of their examination. The zeal and fidelity which so signally characterized the New York appraiser's official action, were found equally to characterize Mr. Rice's official action; and this committee would deem it unjust not to avow that, in their opinion, the warm thanks of the wool growers of the country are due to both of these officers, for their fearless and upright administration of the law.

The attention of the committee was specially directed to the practical effects of the tariff in the admission of foreign wools, and particularly to the fact whether wools which pass the custom houses as third class (carpet) wools, and which pay the lower duties of that class, are not wholly or in part applicable to, and actually used in the same branches of manufacture with Class One and Class Two, (clothing and combing) wools; thus, to the extent of such use, robbing the United States wool grower of the protection against foreign competing wools, avowed to be one of the principal objects of the law. If it can be shown that wools admitted as carpet wools are thus brought into competition with United States wools, by being used in the same class of fabrics, it either establishes the fact that there is no essential distinction between them, and hence no ground for the distinction made in the duties imposed on the respective classes, or else that the terms employed in the tariff classification are defective and open to evasion. In support of one or both of the latter propositions, the committee were informed by individuals, that they had seen combing machinery in operation in certain distinguished carpet mills, and knowing no occasion for its use in carpet manufacture, they were led to infer that it was employed to prepare carpet wool, or a portion of it, to be used in other fabrics.

On the above subject, the committee took the testimony of carpet manufacturers and wool spinners, eminent for character and experience, and supposed to be particularly conversant with the wool manufacturers of the whole country. These gentlemen stated that they did not know of any case of wools admitted as carpet wools being sold or used as clothing or combing wools. An experienced and eminent spinner, Mr. Cameron, of Graniteville, Mass., declared that there were intrinsic properties in carpet wools, (which he described at length,) which unfitted them for *profitable* use in any case, and even from *practicable* use in most cases, as substitutes for Class One and Class Two wools. The combing machinery used in the designated carpet mills was found to be used in their own legitimate operations. Wool is combed for carpet manufacture, the longer portions being used for the warp, and the noils, etc., for filling.

Taking the above statements in conjunction with the important fact that there has been no unusual import of carpet wools since the enactment of the present wool tariff, the conclusion is irresistible that no appreciable amount of the wool which passes the custom houses of New York and Boston, or probably the other United States custom houses, in that class, is employed in the same fabrics, or brought into competition with United States wools.

The committee are fully satisfied, from the results of their investigation, that the classification of wools contained in the tariff has thus far effectually carried out in practice the objects it purported and was intended to embrace, and that at present it needs no amendments to give the wool growing interest of the country full security against evasions of the law, when administered by competent and honest officers. Administered by incompetent or dishonest officers, no legal provisions could give the wool growing interest such security.

Woodchucks with Tusks.—A recent account of a horned woodchuck in the *Mirror and Farmer* is followed by the following statement by Mr. S. M. Baker, of Hillsboro' Bridge, N. H.:—

My boys killed one on my farm last week, of the *Tusk* breed. From the lower jaw, two tusks over four inches in length protruded, turning upward and rising one and one-half inches above the head; also two from the upper jaw, each three and one-fourth inches long, one growing through the roof of the mouth into the passage of the nose, thence turning down and again penetrating through the roof of the mouth, forming a ring large enough for a man's finger; the other turning out of the mouth like the horn of a ram. Any one doubting is invited to call at my house and see for himself.

Beets for Sugar.—Attempts are being again made in Great Britain to re-establish the manufacture of beet-root sugar. A Mr. Duncan, a sugar refiner who deals with no less than 300 tons of sugar weekly, has advertised for 6,000 tons of beet-root, to be delivered in the fall. It is asserted that the failures which have been experienced hitherto have been caused by the imperfections of the processes in ordinary use, and it is confidently expected that certain new methods which avoid these defects will result in success.

One of the most singular conditions attached to the advertisement of Mr. Duncan is that no farm-yard manure shall be used in the culture of the beet-root supplied to him. The over-luxuriance of growth which is produced by the liberal use of manure is fatal to the development of much sugar in the juice. This corroborates what has long been familiar to grape-growers and others who desire to produce fruit with a highly saccharine juice.

EXTRACTS AND REPLIES.

HOOP POLES AND RAISING FOREST TREES.

In your reply to Mr. Fletcher, relative to raising forest trees from seed, you very kindly referred to my little work on that subject. Now every such notice brings me scores of letters asking for information about the price of the young trees, seeds, &c. All such questions I am happy to answer. Still, I wish it distinctly understood, that I have no trees or seeds for sale; and, further, that my books are not written for the purpose of advertising nursery stock of any kind.

You say in your remarks that the subject is a very important one for the West; but allow me to add, to the East, as well.

I believe—in fact know—that there are thousands of acres of rocky hillsides in Massachusetts, and the other new England States, that should be planted with forest trees. Maple trees, particularly the sugar maple, should be extensively planted in such places. Any little crevice where a small one year old seedling can find root, should be occupied with a tree. We all know how thrifty and healthy the trees grow among the lime-stone and granite rocks.

If I were a farmer among the rocks, or even upon the rich lands of New England, and wished to leave a fortune to my heirs, I would plant seeds that would grow into money while I was growing old.

Will any of the young men who read the FARMER, plant one or more acres of suitable soil to hickory trees, and let us know, in five or ten years from now, the result? Plant them for hoop poles. In my little book alluded to, are the following directions: The young, one or two-year-old plants, or even the nuts, may be put in rows four feet apart, and the plants one foot apart in the row; this will give 10,890 to the acre. At this distance they can be allowed to remain until they are six to eight feet high and one or two inches in diameter. They should reach this size in five to eight years, according to the soil and the care they receive. Then they should be thinned, by taking out every alternate tree; this should be done by cutting them off near the ground. We therefore take out 5,445 trees suitable for hoop-poles. Their value will of course depend upon the market, but we will say four cents each, or $40 per 1,000, which would be a low price in New York; this would give $217.80 (two hundred and seventeen dollars and eighty cents) as the return for the acre's first crop. In three or four years they will need thinning again, and we take out, as before, one-half, or 2,722; these will, of course, be much larger; and if they will reach ten feet, and are of good thickness, they will readily bring ten cents each, or $272.20 for the second crop. In a few years more they will require thinning again, and each time the trees, being larger, will bring an increased price. But we are not by this means exhausting our stock—far from it, for those we cut off at first have been producing sprouts which have grown much more rapidly than the originals; and if a little care has been given them so that they shall not grow so thickly as to be injured thereby, we can begin to cut small hoop-poles from the sprouts of the first cutting before we have cut our third or fourth thinnings of the first crop; consequently we have a perpetual crop, which requires no cultivation after the first few years. As soon as the leaves become numerous enough to shade the ground, no weeds will grow among them, and the annual crop of leaves that fall will keep the soil rich and moist. The time to cut trees which it is desirous to have produce sprouts, is in winter or very early spring; if cut in summer, it is likely to kill the roots.

How many acres of young thrifty, white ash trees are wanted in Boston every year for agricultural implements? Is there any one in the vicinity making preparations to supply the demand in the future? I fear not. But there is one thing which I am quite certain of, and that is, the time will soon come when many a land owner in New England, and elsewhere, will say, What a fool I was in not attending to this tree planting in time, for I might have known that there would be a great scarcity and high prices in consequence.

A. S. FULLER.

Ridgewood, N. J., June 7, 1868.

RHEUMATISM IN THE HORSE.

I have a mare ten years old. I have owned her five years. Last winter she was lame in one fore foot (or rather ankle). I doctored it with spirit, saltpetre and gum camphor. It soon got better. Soon after she began to be stiff in her fore legs,—sometimes one, sometimes the other and sometimes neither. I could drive her one and a half miles and back; and she would be but a little lame, perhaps not at all. I found by driving her sometimes in breastplate harness, and sometimes in hames, that she travelled much the best in the hames. She has not been driven hard, nor worked hard, nor fed high. She has had no grain this winter, and till quite late but a few carrots. She raised a colt last year, which at six months old weighed 526 pounds; at ten months, 620 pounds. She is to foal again in about five weeks. Has this anything to do with her lameness? I have had a goodly number of men look at her, and no one can tell me what ails her, nor what to do for her. Now if you or any of your correspondents can tell me, through your paper, what is the cause of her lameness, and what will help her, you will much oblige

A SUBSCRIBER.

Westfield, Vt., May 25, 1868.

REMARKS.—We should think from your description that it is probable your horse has the rheumatism. In the horse, as in man, this is a difficult disease to manage. Though every neighborhood may have plenty of "cure-alls," both men and animals suffer on for months and years uncured. Instead of attempting to prescribe any particular treatment as adapted to your horse, we copy from Youatt the following general remarks:—"In the treatment of rheumatism attention should be paid to the probable nature and causes producing it. When it follows pneumonia, influenza, or other debilitating causes, our first object should be to restore the general health of the animal by the judicious administration of tonic medicines and nutritious foods; an occasional diuretic may also be given. Our local applications should consist in the acute stage of warm fomentations, to be soon followed by some stimulating liniment, such as the compound soap liniment or the vinegar of cantharides. By these means this form of the disease will generally quickly disappear. When rheumatism suddenly attacks an animal in apparent health much more active means must be resorted to. We must endeavor to arouse the excretory organs, as the liver and kidneys, into increased action. Half a drachm of calomel and opium combined with three drachms of aloes should be at once administered, followed in a day or two by active diuretics. Warm fomentations should be applied to the parts,

and when the acute inflammation is subdued, a blister; the animal being kept perfectly quiet, and allowed nothing but bran mash or other soft foods. Colchicum, guiacum, and other medicines which are esteemed as valuable remedial agents on the human subject in this disease, appear to produce but little effect upon the horse."

BLOODY WATER IN OXEN.

I have noticed several articles in your valuable paper of late about red water in cows, but I don't see anything about it in oxen. I have an ox that I bought three or four months ago, and some three weeks since, I noticed his water was considerable bloody, and it has been so ever since. Sometimes it is higher colored than it is at other times; but it comes from him apparently as freely and easily as ever it did. He is in good working order, and eats, drinks, works, and appears as well as usual. But I fear if he does not get better pretty soon it will be likely to affect his health. I have been careful not to draw him very hard, and I don't know that he has ever been strained. Now if you or any of your numerous subscribers, can tell me of anything that will help him, you will oblige me very much. A. B.

South Royalston, Mass., June 1, 1868.

REMARKS.—If our correspondent will refer to the WEEKLY FARMER for March 14 and 21, or to the MONTHLY FARMER for April and May, pages 161 and 223, he will find something about red water in oxen. In the first, "L. W. B.," of Brookfield, Vt., cured an ox that had been troubled for over a year, by four doses of one tablespoonful of copperas and two of saltpetre,—to be doubled in severe cases,—given in the morning at intervals of "a few days." In the other case, after the trial of "some simple remedy without much effect, the ox was fatted and killed. This writer "B. B. S." of Dover, Me., believed the cause to have been warts on the inside of the bladder, and had greatly benefited cows by giving them vinegar.

Dr. Dadd recommends "opening the sluices of the body." For which purpose he prefers giving the animal one pint of linseed oil, and its operations assisted in a few hours with injections of warm soap suds, each injection containing a spoonful of powdered ginger.

In F. A. Gunther's Manual of Homœopathic Veterinary Medicine, it is said that this disease is generally observed in the spring after the animal has been allowed to browse the young shoots of oaks or fir trees, or other noxious substances. The principal remedy mentioned is ipecac, of which a single dose will often suffice to remove it when administered in time.

BEES—APPLE CROP—COWS DOING WELL.

Bees are swarming well this season, but are storing little honey. There have been too many rainy days for much honey. They came out of their winter quarters with an unusually large amount of honey, which has enabled them to rear their brood and swarm early.

Grass is looking very well, but many pieces of grain are badly injured by the rain. Last autumn, Hiram Stow, of Webster, gave it as his opinion, that there would be more apples in 1868, than in any year of the last ten. The blossoms that have just fallen from the trees were abundant enough to verify the prediction.

As a remedy for many of the diseases to which cows are liable at the time of calving, an old milkman recommended "a thriving condition." Cows may carry a good amount of flesh and yet not be *thriving*. Such are very liable to do badly when they calve, while others with much less flesh, and to one unacquainted with their previous condition, apparently in far worse condition, will do well, because they *are* thriving. We have found no need of rosin, snake skins, boiled rye, or such like remedies, for thriving cows at calving time. P.

Mastyard, N. H., June, 1868.

LOBELIA, OR INDIAN TOBACCO.

A correspondent, who allows us to use only the signature of "Mary," believes this plant to be the cause of a great proportion of the sickness and death of farm stock. The writer does not expect people generally will agree with her, but believes that careful observation will result in the conviction that it is a mischief-making plant. As it flourishes best in wet seasons, and more is gathered with the second than first cutting of hay, our correspondent suggests the large crop of last season as the cause of the prevalence of the unusual amount of sickness among sheep and other stock the past spring.

STIFLE OUT.

I would like to inquire if any subscriber can ask questions through the FARMER, free of charge. As I have just commenced farming, I would like to ask a few questions through the FARMER. And first, my best cow threw her stifle out, and I cannot keep it in place. I would like to know if the editors or any of the readers of the FARMER can tell me what I can do for her? Sometimes she does not limp at all, but at others she can hardly walk. B. M. BALLARD.

Fairfax, Vt., June 1, 1868.

REMARKS.—Instead of making any charge for publishing such inquiries, we are grateful to those who take the trouble to make them; because these questions,—even those which appear the most simple to some,—draw out valuable hints and suggestions. We hope the foregoing will do so. Since its reception, a gentleman of much experience with cattle, Mr. Charles Bird, of Walpole, Mass., informs us that in very serious misplacements of the stifle, it is necessary to fix up in the stable a rest or swing for the animal, similar to that used by blacksmiths, so as to support a considerable portion of the weight of the animal. The lame leg should then be brought forward by means of straps, and the bone put in place; and an ointment of 4 oz. of sweet oil, 3 oz. of skunk's oil, 3 oz. of good brandy, 3 oz. of balm of Gilead buds, 2 oz. of wormwood and 1 oz. of hartshorn applied occasionally to the joint. The animal should not be kept in the swing more than four hours at a time.

But in your case we hardly think all this necessary. The animal should be kept away from other cattle, and as quiet as possible, on a smooth surface, without being required to go over bars, or up or down steps in passing to or from the stable. We think a more simple liniment than that recom-

mended above, or one composed of a part of the materials mentioned, might prove beneficial. We have much faith in the free use of pure cold water in all such cases. A decoction of 4 ounces of wormwood in 2 quarts of scalding vinegar, applied cold is recommended by Dr. Dadd for strain in the hips, and would perhaps be beneficial in case of stifle. For deeply seated strains, Mr. Cole recommends: Spirits of turpentine, half a pint; oil of organum, half an ounce; olive oil, a pint and a half; cantharides, half an ounce; mixed together in a bottle. Rub in, morning and night. Should it produce redness and tenderness, reduce by adding olive oil.

CURING HAY, SALT AND LIME.

Mr. Brown:—I noticed in the New England Farmer, under date of August 17, 1867, an improved method to me, of curing hay, viz.: four quarts of lime and two quarts of salt. It appeared from the same paper, that you also put down one square in the same way. Please state the particulars in regard to the value of the hay, compared with that cured by the common mode. What becomes of the lime? Is it all taken up by the hay, and therefore into the animals' stomachs? If so, are such quantities of lime good for animals?

Fitchburg, Mass., June 2, 1868. E. Graham.

Remarks.—The grass upon which we put the salt and lime was cut upon a lawn, was not more than five inches high, very juicy, and consequently difficult to cure. It was dried as well as the weather would permit, but when put into the barn was damp and heavy. The lime and salt mixture was added as the hay was stowed away. On examining it several times, no heat or musty smell was found. It was fed out in March, and the cattle ate it freely. It had not, however, the sweet and fragrant odor that well made hay usually has. We should recommend the use of the lime and salt only where it is found necessary to put hay into the barn imperfectly cured. Nothing can add value to the richness and flavor of English hay that is well made.

A lot of grass cut from the same lawn about fourteen days previously was dried out of doors as well as the unfavorable condition of the weather would permit, was taken to the barn and spread over the empty floor and scaffolds, but in spite of frequent turning and attention, grew musty, and was essentially injured.

The salt and lime probably attract the moisture in the hay to themselves. When the hay was fed out, some portion of the lime was found to fall out in a fine dust, while pitching it over.

A correspondent of the *Utica Herald*, Mr E. Lampher, of West Martinsburgh, N. Y., who used "less than a bushel of lime on forty tons of hay," put in the bays two years ago, while that in sheds was not limed, says that the limed hay came out all bright, but dusty. Stock eat it well, but when his cows come in, in the spring, they did not give as much milk as they did the spring before, or this spring, although they were messed with better grain for milk than they have been this spring. One of his horses has the heaves, and cannot work on the limed hay without wetting, while other hay affects it very little; his other horse has no heaves nor cough, but can eat the limed hay but a few days without coughing badly. He has some of the hay now, but cannot feed without wetting. In this case it appears that the lime was used without salt.

COOKING FOOD FOR CATTLE.

It appears to me that extravagant statements are occasionally published in agricultural papers in respect to the advantages of cutting and cooking fodder for animals. In the Monthly Farmer for December last, page 572, there is a brief report of the discussion of this subject at one of the evening meetings held during the New York State Agricultural Fair at Buffalo, last fall. Some considered two bushels of steamed fodder better than three uncooked. One said that by cooking, the value of food was doubled; another that it was trippled. Supposing the lowest estimate to be the true one, what a pity that farmers generally are not convinced of it. What an immense gain to save even one-third of our fodder. It would very sensibly lower the price of hay. Why do not some of our agricultural societies or agricultural colleges decide this matter by accurate experiments? Is it not their appropriate business?

Derry, N. H., May, 1868. E. B.

Remarks.—The medical college, the theological seminary, and the scientific school have failed to settle questions on which men disagree in medicine, divinity and science. Why, then, should we expect the agricultural college to be more successful in harmonizing the "many minds" of farmers? No, friend "B.," the agricultural college may do much good; it may train the "head to save the heels;" it may compel chemistry and geology and many other sciences to put their "shoulder to the wheel" of the farmer's cart, and to prepare the manure for his impoverished soil,—but it will never do the thinking for the men who have the granite of New Hampshire in their bones, the air of the Green Mountains in their lungs, the sunrise of Maine in their eyes, or the memory of the Pilgrim Fathers, or of Roger Williams in their hearts. The agricultural college may stimulate inquiry, investigation, and experiment; but it will never supersede the necessity of individual thought and experiment.

DEEP PLOUGHING.

I wish to inquire through your paper about deep ploughing; whether eighteen inches are not better than twelve would be on most soils?

Weston, Vt., June 8th, 1868. E. A. Moore.

Remarks.—Very few farmers plough anything like twelve inches deep, and yet among all those who practice shallow ploughing there is not a single one probably that would not like a rich soil even eighteen inches deep. But will ploughing alone secure such a soil? Many of our agricultural teachers seem to think so, and advocate universal deep ploughing. In his new edition of *Elements of Agriculture*, Mr. Waring says, "the advantages of deep ploughing cannot be too strongly

urged," and farmer Greeley of the New York *Tribune*, who affirms that no garden or orchard should be planted unless trenched or ploughed at least two feet, holds that "deep ploughing is a remedy for the woes of our country." The NEW ENGLAND FARMER also believes in and advocates what it calls "deep ploughing." Is your question, then, answered in the affirmative? We think not. Whether eighteen inches are better than twelve, or six, or four, depends on circumstances. However desirable a deep rich soil may be, it may be that he who hasteth to plough deep without regard to the character of the subsoil or the amount of manure he can apply, "considereth not," like old Solomon's man that hasted to be rich, "that poverty shall come upon him." Still we believe that a gradual deepening of the furrow slice is desirable on most of our old fields, and on many of them quite necessary. The celebrated Mechi, of England, ascribes his success in the cultivation of heavy clay soils to deep ploughing and *heavy manuring*, and yet he cautions against turning up too much of what he calls "the villainous subsoil," even on such land; while on loose, sandy or gravelly soils he advises "compression" instead of deep cultivation. If there were a bed of manure twevle inches below the surface, or a strata of the "green marl" of New Jersey, perhaps "the advantages of deep ploughing could not be too strongly urged;" but if instead of a bed of manure or of a subsoil as good or better than that at the surface, there is a layer of hungry sand, washed gravel, or a pavement of boulders, little perhaps would be said in favor of a two-foot furrow after a fair trial. The fact is, that in ploughing, as in all other operations on the farm, circumstances and common sense must govern.

RAPE FOR COW FODDER.

In the FARMER of May 23, is a communication over the signature "N. S. T." on corn fodder for soiling. I agree with him as far as he goes. But he has said nothing of the best feed between the first frost and winter. I have for a few years past planted rape for green feed, after the frost has cut corn. It is first-rate feed as long as it can be had for snow. Say two and a half or three feet by eighteen inches is about the right distance to plant it, which may be done any time in June, the sooner the better, however. The seed is the same that is sometimes fed to birds, and may be had at the seed stores in Boston. Rape makes the best butter of anything I ever fed to cows. It wants rich land. It won't grow on land without manure.

Westboro', Mass., June 14, 1868. W. S. GROW.

REMARKS.—This plant which is largely grown in Europe, belongs to the cabbage or turnip family, but it never heads like the former, and its roots are of little value compared with the latter. It is frequently called *coleseed* in England, and *navette* in France. Its seed is rich in oil, and the whole plant is extremely valuable as green food for cattle and sheep. The plants survive the winter in England and produce seed the second year. There are several different varieties of the rape. On heavily manured land it grows to a height of six feet. Mr. Blackie, an English writer on agriculture, remarks, "I am almost afraid to say that I believe, with the addition of some straw, an acre will keep thirty head of cattle in full milk for a month."

NEW ENGLAND PIONEERS IN WESTERN VIRGINIA.

The following bit of history of two young men from New England fell in my way some time since, and I think it worthy of preservation.

In the year 1749, the head waters of the great Kanawha River that lies immediately west of the Alleghany mountains, in what is now West Virginia, was discovered; and from the reports of that rich country, abounding with game and fish, many visitors were attracted there the following year, 1750, and among others two young men from New England, by the name of Jacob Marlin and Stephen Sewell. They were so captivated with the country, and with the Buffalo, Elk and smaller game which they found there, that they remained over winter, though near a hundred miles from any white settlement. Here they were found in the spring of 1751 by a surveying party from Eastern Virginia, the Lewises and others; but then living some eight miles apart. Mr. Lewis inquired what could have induced them to separate in the absence of all other human beings, and was told that a little difference of opinion had caused the separation. At this time, however, a better understanding existed, and they were sufficiently friendly to salute each other with "good morning, Mr. Marlin," and "good morning, Mr. Sewell," when they chanced to meet.

The location of these young men, during that winter has ever since retained their names. Marlin's camp was on one of the finest bottoms on Greenbrier River, and a post office there is called "Marlin's Bottom." This "Bottom" has been cultivated in corn and wheat for about one hundred years, and that without manure or rest, and still produces from fifty to eighty bushels of corn to the acre. The writer, himself, has seen about eighty bushels to the acre.

Sewell's shelter was a large ledge of limestone rocks, near a fine spring, and the neighboring stream is called "Stephen Hole Run" on the public records of all the lands on that water. Both of these localities are in Pocahontas County. During the year 1751 Sewell went some forty miles further west and was killed by the Indians on a mountain known on the map of Western Virginia as "Sewell Mountain," and a post near the place of his death bears the name of "Sewell."

During this surveying expedition of Col. John Lewis, in 1751, his party at one time became seriously entangled in an almost impenetrable jungle of the Green Brier bushes, and hence the name of Greenbrier River has attached to the stream on whose rich intervales these briers grew so luxuriantly. J. H. R.

West Virginia, June 1, 1868.

TIME AND MODE OF MAKING HAY.

ESTEEMED FRIENDS:—Being a subscriber to the NEW ENGLAND FARMER, and looking to it for instruction, I hope to see more definite instructions as to making hay. I have several articles before me recommending very early cutting, and not making as much as is generally done; but none of the writers state whether they use salt or not.

I intend to cut earlier than usual, make two days while the hay is green, and put four quarts of slaked lime and salt, equal parts, per ton; after the grass is nearly ripe, I propose to get in the hay the same day it is cut. Now if there is a better way I would be glad to learn it, as hay is our most important crop, and how to get it, the most important question in farming.

Does steam from heating hay tend to draw

lightning? Will lime and salt, used as I mentioned, have any bad effect on the stock? Would it be advisable in any case to get in hay cut green, the first day? CHARLES KEZER.

East Winthrop, Me., 6th mo. 15th, 1868.

REMARKS.—It is generally understood that chimneys from which heated air is ascending into the atmosphere, and barns stored with new hay, the vapors from which also produce warm ascending currents, are especially liable to be struck by lightning. Our own experiment in the use of hay to which salt and lime was applied, and also that of a gentleman in New York, are stated in another place in this paper. Others who have used the mixture think it has no injurious effect on stock.

EAST VS. WEST.—BUNCH ON COW.

Six years ago I came here to No. 4, near Lakeville, from Topsham in Sagadahoc Co., and bought a farm on the head waters of the Schoodic lakes, about thirty-five miles from Calais, and seventy from Bangor, in preference to going West. I am well satisfied, and to-day would not exchange with any Western man for the same number of acres. We have plenty of good land, good markets, and good health. We have had a very wet spring this season. Grass looks well. Apple trees are just blooming out, which is very late for us.

I have a cow that is sick. She has a lump on her dewlap where it joins the brisket, about five inches through and ten long, and is as hard as a rock, apparently. Some say that it is garget; but it looks to me more like a tumor. I have given garget and also put a piece in her brisket, but it does not seem to run or do any good. Will some one please give me some information through the FARMER, and oblige a new beginner.

A. E. GOWELL.

Lakeville Plantation, Me., June 8, 1868.

REMARKS.—Sometimes these bunches will yield to repeated washings and rubbings with salt and water, vinegar and water, or tar and salt. Sometimes surgical operations are performed, which are often troublesome and costly. If the animal eats well, it may be best to fatten her for beef. What say others?

BELLS FOR SHEEP.

Would it not be a good plan, for some one who has them, to advertise in the FARMER bells to put on sheep; cow-bell pattern, small size, to frighten bears, dogs and foxes away from sheep and lambs? Fifty dozen could be sold in this town if we knew where to send for them. Can't you help us a little and oblige. J. W. LAMPREY.

Orfordville, N. H., June 8, 1868.

REMARKS.—In some dissertation on sheep that we read lately we remember the remark was made that every tenth sheep should wear a bell. Now if there are 22,000,000 sheep in the United States, over two million bells are wanted. Is not such a demand worthy of the attention of some bell-maker?

FOR RAISING PICKLES FOR MARKET.

Old pasture land is preferable. Plough it up now, turn as smooth as possible and roll smooth, then the grass will rot quickly and you will have no weeds to trouble. Any kind of well rotted manure mixed with green night soil, or the night soil well mixed with loam will raise good pickles. Furrow the ground both ways, having the rows four feet one way by six the other, put two shovelfuls of manure in a hill. Be sure and get the right kind of seed. Obtain it from some one who has raised for his own use. It will pay you to visit some farmer who has been in the business and is willing to impart the knowledge gained. Plenty of such can be found in Lincoln and Concord, Middlesex County. Farmers hereabouts usually contract in the winter with pickle dealers in Boston to raise a certain number of acres, at so much per thousand pickles, delivered at the factory. Before the war they were a profitable crop at $1.25 per thousand. They are a very easy crop to raise and can be raised on any land where corn will grow. Plant from the 10th to the 20th of June. Z.

Reading, Mass., June 6, 1868.

SLIDING AND ROLLING HORSE RAKES.

In the FARMER of June 13, "Richard" of Oxford county, Me., inquires for a horse rake that is not liable to get out of order, and that *slides* the hay along on the ground instead of rolling it as all spring tooth rakes do. After trying several kinds of rakes, I have used for the last three years one of the Warner wooden revolving rakes, attached to wheels. It obviates all the difficulties which the writer speaks of. The teeth running flat on the ground, it rakes clean, makes the snuggest window, and the best to pitch of any that I ever saw, except those made with a hand rake. They are easily managed, and durable. The rakes are manufactured at Williston, Vermont.

HARMON NORTHROP.

Fairfield, Vt., June 15, 1868.

REMARKS.—An anonymous correspondent recommends Burt's Self Adjusting Independent, Spring-tooth Rake, as one that rakes clean without scratching, is easy to manage, and gives perfect satisfaction in his case.

SUGAR FROM WHITE MAPLE TREES.

Your correspondent, J. I. Landman, of South Londonderry, Vt., inquires if sugar can be made from the common white maple. I have never seen it made from that alone, but I do make it with the rock maple. I have a second growth of thirty-two trees, sixteen of them are white maple. This year I made about 100 pounds of as handsome sugar as can be found in Vermont. He asks if it can be profitably done. I think the sap is not so sweet as the rock maple, but no doubt it is profitable.

AN OLD SUGAR MAKER.

Westfield, Vt., May 25, 1868.

REMEDY FOR THE CURRANT WORM.

I saw in your last paper, you recommended white hellebore, which is not only costly, but a dangerous poison. Some persons have been poisoned fatally by using it. I have used air slaked lime for several years with perfect success. Take lime that is air slaked so as to be fine as flour, and sift it on with a hair or wire seive when the bushes are wet with rain or dew, till they are white with it. No fear of using too much as it will not hurt either leaves or fruit. It will also stop the slug on rose bushes. SUBSCRIBER.

Pepperell, Mass., June 13, 1868.

COW-CORN VS. SQUASH VINES AND WEEDS.

In an article on corn for green feed, "N. S. T." referred to a conscientious milk man who abandoned the use of green corn. Was its use discontinued through ignorance, or was the milk produced from it of inferior quality? If the milk is inferior, what is the gain to the person who con-

sumes his milk in the manufacture of butter and cheese? From the same article we learn that at a certain stage of the growth of the corn, the whole value of a ripened crop is found in the green stalks. If that is so, will it exhaust the fertility of the soil as much to grow a crop of green corn, as it would to ripen the same crop? We need a substitute for grass late in the season, and notwithstanding the discussion of the cow-corn subject in the FARMER, we prefer to try our luck with green corn, rather than with squash vines and weeds. F.

Mastyard, N. H., June 10, 1868.

SALT FOR RYE.

In 1865 I sowed about eleven acres of land, which had been entirely impoverished, consisting mostly of light sandy soil, with rye—two bushels of seed to the acre. The field had been in white beans the year before, and had not returned the cost of seed and labor. For the rye it was ploughed in July, and buckwheat sown, which was turned over when in blossom and rolled down. The rye was sown in October, broadcast, and after harrowing, ten barrels of refuse Saginaw salt was spread over the field. The result was, in some respects, extraordinary. Before germination, a tremendous gale, lasting through several days, carried volumes of sand off the field, reminding one of the simooms of Sahara. The following winter was open, without snow sufficient at any time to cover the rye. During the succeeding summer and fall several severe gales prostrated the timothy and corn in neighboring fields, but did no injury to this rye, which was of very rank growth and attained an unusual height, yielding a trifle over thirty bushels to the acre. The rye crop in my vicinity that year was almost a total failure. In the spring of 1866, clover was sowed by a machine on the young rye, and produced as even a lay and good yield as could be desired.

My deductions from this experiment are, that the salt gave increased growth and stoutness of straw, and increase of yield and plumpness of berry, fully confirming, to my mind, the soundness of our revered friend John Johnston's views on the use of salt as a fertilizer for wheat and rye.—*E. N. Wilcox, Whitwood, Mich., in Country Gentleman.*

HEALTH OF AMERICAN CATTLE.

Among the curious things which we should like to see explained, is the reason why American cattle, of late years, are more afflicted with disease than formerly. The census reports do not show such a marked increase in numbers as to warrant the assumption that it proceeds from any such increase. We are constantly hearing of fatal maladies breaking out among cattle in various parts of the country;—in the Eastern States, in the Middle States and now at the West. The so-called "native cattle" of the country were singularly free of disease. Of late years there has been a general desire to improve our stock by strains of imported blood. We do not say that this has been the direct or indirect cause of disease, but the fact stands boldly out, so far as the Central counties of New York are concerned, that the trouble among the herds commenced with the admixture of thoroughbred blood in the herds. The old stock of the country was far more hardy and vigorous than are the improved breeds of Great Britain. The climate of Great Britain differs materially from that of this country. How far a change of climate and the infusion of blood from a less vigorous race has affected the health of our stock, the physiologist is best able to explain, but it would be reasonable to suppose that all the circumstances combined might have more or less influence upon the health of American cattle rendering them less able to resist disease.—*Utica Herald.*

APPLYING MANURE.

After a variety of experiments running through forty years of close application to agriculture, I have adopted the following practice: 1st. Make and save all the manure you can. 2d. Apply the winter's production to the spring crops, so far as its condition will allow its admixture with the soil; and that which needs decomposition, apply to winter grain and top-dressing of meadows in autumn. In applying manure to winter crops, I prefer to fit the fallow well first, then spread the manure as even as can be done; sow the grain and work the land thoroughly with a cultivator and harrow. The manure being so near the surface, protects the young plants from the frosts and winds of winter, and places the very food they want within ready reach of the plant, and assists the grass seeds to a good catch.

In applying manure to spring crops, I put the heaps at such convenient distances apart that there is no difficulty in a careful hand spreading it *evenly* over the ground, and spread it only as fast as you are ready to plough it under, to prevent waste by evaporation, and plough no deeper than is necessary to protect the manure from waste by the elements, the land having previously been thoroughly worked by deep culture. It is seldom that a good catch of seed fails by the foregoing practice, unless the land has been cropped so much that the vegetable mould is exhausted. Seed down with the second crop, with a good application of manure, and you will not have "worn out lands."—*Hiram Walker, Mexico, N. Y., in Country Gentleman.*

—According to the Monthly Report of the Director of the Bureau of Statistics of the Treasury Department, Alex. Delmar, Director, it appears that the importation of raw and fleece wool in March, 1868, amounted to 1,866,820 pounds, and in March 1867, 3,808,402 pounds.

Sweet Potatoes dried -

PRESERVING ARTICLES OF FOOD.

PERHAPS in no department of human economy has there been a greater advance within a few years past, than in the preserving of articles of diet in a wholesome and palatable condition, for the use of travellers, sailors, soldiers and families.

Condensed milk, canned fruits and meats; pemmican; dried fruits, as apples and peaches; Hosford's essence of beef, in which the nutritive substance of an ox is reduced to a few pounds and packed in a sealed can, ready to be transported in the traveller's trunk, and converted in a few minutes into a rich soup; Professor Gamgee's method of preserving meats in their natural form so that whole quarters of beef and mutton can be transported from South America to Europe in a good condition, and brought upon the tables of London or Paris without their taste or healthfulness being in the least impaired,—are but a few of the instances that might be mentioned, of what science has suggested for the convenience or necessities of many. The preserving of vegetables, fruits and meats, in a fresh state, in our houses, kept at a uniform temperature, sufficiently low to prevent fermentation and decomposition, and just above the freezing point, is another instance of the same kind. In this way, articles that would otherwise rapidly decay, can be stored when there is a surplus in the market, and be kept till they are wanted, to the advantage of both the producer and the consumer. Such establishments are springing up in the vicinity of large cities, and if they do not become sources of monopoly and speculation, will prove a great convenience

Our attention has been turned to this subject, by a notice in the Report of the Department of Agriculture, of the drying of sweet potatoes, to which we briefly alluded a few weeks since. This tuber is wonderfully productive at the South, and is not only cheap and nutritious, but is a favorite article of food with all classes. The difficulty of keeping it is fully appreciated by families and dealers in vegetables.

Dr. C. K. Marshall, in the *Vicksburg Times* in September last, asked, "Cannot sweet potatoes, which our soil and climate are so wonderfully adapted to produce, be cut into slices and so dried that they might be made an article of merchandise? Fruits and vegetables have been dried and prepared for shipment, and thus become valuable crops. If sweet potatoes can be treated so as to preserve the saccharine matter, and become an article of food, even though not as agreeable as the undried root in its best condition, they would pay as handsomely as any product of the Southern soil." This inquiry has been answered by Francis H. Smith of Baltimore, who has dried sweet potatoes successfully in his drying tunnel, which is a chamber of lathes and plaster, twenty feet long and six feet in breadth and depth, with a peculiar furnace at one end, and a chimney of boards at the other, capable of preparing twenty-five bushels of dried peaches.

The potatoes are peeled by a little machine and sliced three-eighths of an inch think by another, with great rapidity. When dried they have lost two-thirds of their weight, weighing twenty pounds; are white and so flinty, that a knife makes but little impression upon them; but when cooked—steaming is the best way—they resume their original appearance and are in every respect equal to the undried root in its best condition. Should the sweet potato in this dried state, become a popular article of diet, and we see no reason why it should not, especially at the North, where the difficulty of preserving it is so much greater than at the South, it would be of great economical value. We see no reason why the common potato may not be dried in the same way, although its better keeping property makes this less necessary; yet it would thus be rendered portable, and might be more readily obtained in many cases in which it is now impossible to get it. How much suffering might thus be saved in the camp and the naval service, from which its free use would banish scurvy, that terrible scourge of the soldier and sailor.

SOIL FOR FLOWERS.—Leaf mould is good for flowers if two or three years old, and very much decayed; when but half rotten it is an injury. Rotten sod is the best sod for flowers; and cow manure which has lain two years to rot, the best fertilizer. Where rotten sod is not easily obtained, the edging parings of walks may be preserved in a heap for flower purposes.—*Gardener's Monthly.*

TREATMENT OF OLD ORCHARDS.

I have an orchard of about five hundred apple trees that were set forty years ago, one rod apart. When I came into possession of the farm, eight years since, the trees had been neglected to such an extent that full one-half of the limbs were dead, and now one-half of the trees are dead. The remaining trees are large and have a large amount of brush. I have thought of cutting them down, and put two trees in a pile, and burn wood and brush all together, and then set half the number of trees on the same ground in the ash beds. Please inform me what you think of it. O. H.

New Vineyard, Me., June 9, 1868.

REMARKS.—Well, we are not prepared to endorse your plan. Perhaps we should be if we could see your trees. But if the "large amount of brush," you speak of, is live wood, either of old limbs or sprouts, we should certainly hesitate to apply the torch. We have eaten so much fine fruit from rejuvenated old orchards that we are disposed rather to say, "Woodman, spare that tree." The pomological tutor of one of the editors of the FARMER, the late Chauncey Goodrich, of Burlington, Vt., was very successful in making old orchards "almost as good as new," and we propose to give you a brief account of the treatment he adopted, and which we assisted him in executing, for reclaiming old apple trees. We do this the more readily as our memory is refreshed by a little work he published in 1850, entitled *Northern Fruit Culturist*.

After admitting that our old orchards in New England are becoming scrubby and worthless, and rapidly dying out, he inquires for the cause. He alludes to the well settled principle in vegetable physiology that no plant or tree will flourish and produce fruit in ordinary soils, after the particular ingredients required for its growth is exhausted, though other plants or trees may grow there in the most perfect manner. Analyses of the sapwood and of the bark of apple trees, show that both are composed largely of potash, lime and carbonic acid, viz:—

	Sapwood.	Bark.
Potash	16.19	4.930
Phosphate of lime	17.50	2.425
Carbonic acid	29.10	34.830
Lime	18.63	51.578
Total	81.41	93.763

These, and the other materials, such as soda, magnesia, organic matter, &c., which according to the analysis make up the tree, were abundant in the new soils of New England, and hence for a time apples were easily raised on new land. But as these materials become exhausted our orchards fail, and nature proposes a "rotation of crops." No farmer expects to grow corn for twenty or fifty years by planting it every spring, in the same hills, without manure or cultivation, especially if in a field of grass. Is it not as unreasonable to look for successive annual crops of apples under similar circumstances? In some cases, also, the soil, which was at first loose and porous from the presence of the leaves and roots of the primitive forests, has become compacted and too wet.

If right in this brief statement of the disease of our sick orchard, at least "half the cure" is suggested. If the trees are starving they must be fed, and if their feet are in cold water, we can draw off the water easier than we can take their feet or roots out of it.

The first prescription of Mr. Goodrich was uniformly a dose of plough. Then for each large old tree "take" a bushel of slaked lime, or ashes, with plenty of peat or swamp muck, or any coarse vegetable matter, with enough stable manure to fit the ground for corn or potatoes, which may be cultivated upon the land. After this an annual top dressing of muck with refuse lime or ashes, should be applied. Never sow any grain under the trees, and if you must let the grass grow after the trees are started, cut that under them, at least as far as the branches extend, "early and often," and leave it there for a mulch,—don't begrudge the tree that much.

The next year after this cultivation and manuring, *commence* operations on the trees. So far you have acted the part of a "physician;" your "alteratives" and "tonics" have invigorated the system of your patient; and you now enter upon your duties as a "surgeon." Don't forget that your patient is a living, organized being,—and not the "dead subject" of the "dissecting room."

Scrape the old bark from the bodies and large limbs, and with a large brush or broom apply ashes and water to them; this will destroy insects and give a healthy appearance. White-washing with lime is always bad for a tree, as a hard crust is left. As the trees will now be in a growing state, they can be grafted successfully, which cannot be done with scrubby, uncultivated, dormant ones. Commence grafting by removing at least one-half of the top, and the whole of the centre, which alone should be grafted this season.

This will increase the growth of the lower branches, so that the next season they can be grafted successfully; the third and fourth season, any limbs left should be removed or grafted, so as to present an entire new top.

If we examine the body or limbs of a tree covered with sprouts, we shall find it rotten at the heart. If these sprouts are yearly removed, the tree will gradually decay and die. If a portion of them sufficient to form a new top, are retained, and a severe yearly pruning of the old limbs is given, the whole of the old top may be removed in five years, and a new, healthy, bearing top formed. Dead or decaying limbs rapidly exhaust the life and vigor of a tree; as long as any part of a tree is alive, dead limbs must at some point join the living part, and necessarily be slowly, but constantly, exhausting its vitality. Great care should be used, in cutting off large limbs, to cut them obliquely, and so close to a growing limb, or sprout, as to have a *lip* soon form over its edges, which effectually protects that most vital part of a tree, the bark. To enable any tree to do this, some covering must be applied where the limbs are removed. The best (and we have tried all kinds we have ever heard of) we have ever used, is common tar, made thick, when warm, with brick-dust, procured by grinding to a powder soft brick; this when kept in a small kettle, can easily be applied, when warm, with a common painter's brush. For small trees or small limbs common grafting wax will answer all purposes; but from large limbs, it will peel off the first season. Where new tops are formed from shoots, and the old top removed, care must be used not to do it too soon; if so, the growth is so suddenly checked that the new wood is destroyed. A sufficient number of new shoots or suckers, to form a new top, should be retained, and suffered in all cases to grow till one inch or more in diameter at the bottom, and then only a part of the top removed in one season. Stocks grafted should be left at least twenty inches long.

We have seen trees in Mr. Goodrich's renovated old orchards, with only a strip of live wood and bark of from one to two-thirds of the circumference of the original trunk remaining, and consequently so weak as to necessitate careful propping, yet heavily loaded with splendid fruit.

In closing these somewhat extended remarks, we must pay our correspondent, "O. H." in his own coin, by repeating his words; "Please inform us what you think of it?"

NEW PUBLICATIONS.

THE ELEMENTS OF AGRICULTURE: A Book for Young Farmers. By George E. Waring, Jr., Author of "Draining for Profit and Draining for Health," formerly Agricultural Engineer of the Central Park in New York. Second and Revised Edition. New York: Tribune Association. 1868. Price $1. 254 pages.

This is neither a scientific treatise nor a handbook for practical farming. It is merely an attempt, the author informs us, to translate into common language, for the use of every-day farmers, that which science has discovered and has told in its own necessarily technical terms, and which practical experience has proven to be of practical value. This, we believe is a difficult task. The old adage that there is no royal road to learning, is just as applicable to the "every-day farmer" as to the sons of kings. And if it were true, as our author asserts in the opening of the first chapter of his book, that a knowledge of the "exact composition" of plants is necessary to their successful cultivation, a famine such as the world has never known, must at once follow, because it is not probable that one farmer in ten thousand possesses this knowledge. Agriculture is an art, which men learn as they learn other arts; and it is possible to cultivate the earth successfully and economically with very little knowledge of the chemical properties of soils or plants.

Still we do not ignore nor undervalue scientific agriculture, or scientific knowledge. We believe that every farmer in these days of many books and papers, and in these days of wise writers, who have all manner of chemical and other scientific terms at least at their fingers' ends, ought to be posted as to their meaning. This Mr. Waring gives in a plain, if not always perfectly satisfactory manner, and we commend the book to farmers and farmers' boys who stumble at the big words they come across in their agricultural reading, and to those also who wish to know what science is doing for the farmer, and how she does it.

FIVE HUNDRED AND SEVEN Mechanical Movements, embracing all those which are most important in Dynamics, Hydraulics, Hydrostatics, Pneumatics, Steam Engines, Mill and other Gearing, Presses, Horology, and miscellaneous Machinery: and including many Movements never before published, and several which have only recently come into use. By Henry T. Brown, Editor of the *American Artisan*. New York: Brown, Coombs & Co. Boston: New England News Company. 1868.

The illustrations and letter-press descriptions of these five hundred and seven mechanical movements are on opposite pages, so that the one may be readily compared with the other. A copious alphabetical index also facilitates reference. We think the work must be indispensable to artisans, inventors and all who would understand the mechanic arts, as well as to every one who operates

machinery or carries a watch. As machinery is introduced upon the farm, a knowledge of mechanical movements becomes necessary to those who run mowing machines, tedders, threshers, planters, &c., and we advise farmers and farmer's boys to procure this little volume, from which much may be learned of the principles of machinery, and of what it is capable of doing.

IOWA AGRICULTURAL COLLEGE.

An important business meeting of the Board of Trustees of this College was held May 11th. Officers and Professors were elected as follows:—

President—Professor A. S. Welch, formerly of the Michigan State Normal School.
Professor of Chemistry and Practical Mechanics—Prof. W. A. Anthony, of Antioch College.
Professor of Mathematics—Mr. G. W. Jones, Principal of Franklin Institute, New York.
Professor of Practical Agriculture—Mr. Norton S. Townsend.
Professor of Geology and Natural History—Mr. M. St. John.

A Board of Non-Resident Professors or Lecturers was also recommended, consisting of Prof. Agassiz, Hon. J. B. Grinnell, J. J. Thomas, Dr. John A. Warder, Dr. Dadd, and Prof. Johnson.

A resolution to admit females to the privileges of the College on the same condition as males was adopted by a vote of nine to three. From the report of the committee to whom this subject was referred, we make the following extract:—

If young men are to be educated to fit them for successful, intelligent, practical farmers and mechanics, is it not as essential that young women should be educated in a manner that will qualify them to properly understand and discharge their duties as wives of farmers and mechanics. The greatest defect in the education of girls and young ladies of the present day, is the tendency to limit their acquirements to the superficial, frivolous accomplishments that unfit them for rational enjoyments, useful or satisfactory pursuits. Influenced by the fashionable course of instruction so prevalent, they soon learn to despise labor, to look upon it as degrading, and turn from the young men who are employed in industrial pursuits, with feelings of pity, if not of aversion, as though a life devoted to honest labor was a misfortune to the young man whose choice or necessity had led him to adopt it. Again we hold, that we as Trustees, have no right to exclude girls from the benefits of our State Agricultural College. The funds for the purchase of the farm and the erection of the buildings, are derived from the tax payers of the State, and upon what principles of justice can we declare that only those who have *sons* shall enjoy its benefits?

The committee further says that all the other colleges in the State, including the University, admit girls upon equal terms with boys, as does also the Kansas Agricultural College.

It was recommended that the number of students to be admitted for the first term should not exceed one for each member of the State House of Representatives, making the whole number ninety-nine.

For the New England Farmer.

EARLY CUT AND POORLY CURED HAY.

Believing that the neat cattle and sheep of the New England States are worth a great many dollars less,—that their health has been injured and their condition reduced, by the use of partly grown and imperfectly cured hay, which has been much encouraged of late by agricultural papers, I feel it to be a duty to my brother farmers to enter my protest and caution against the practice; though by so doing I should find my own convictions in opposition to that of all mankind.

The experience of observing farmers generally, in New England, for a long series of years had established the rule that the right time to cut English grass is when it is in blossom; but as it cannot all be cut exactly at the right moment, it has been necessary to mow a part a little ealier, while another part stands a little later. I do not advocate the principle of letting grass stand until the stalk becomes woody and wiry, but when I see a farmer cutting his grass before one spear in ten shows its head, I feel that he is suffering a great waste.

I also most earnestly object to the modern doctrine of slack drying of hay, believing that it is at best a saving "that tends to poverty."

Hay put into a bay poorly dried will sweat out more weight than the sun and air would have dissipated in proper curing. An amount sweetness, goodness and nourishment for the beast, is thus destroyed that never can be returned to it. If you wished to keep your family in good health, would you think of feeding them with bread made from any kind of grain that had been closely packed in a large body in such condition that it would heat, swell and perhaps some of it sprout? How then can we expect our cattle to be in a healthy condition that are fed on slack-dried, musty hay? I do believe that cattle and horses will be in better condition fed on Massachusetts *wild* meadow hay, well cured, than on Maine, New Hampshire and Vermont early cut, upland hay, poorly cured. If this is not the case, why are the store cattle in Massachusetts, where so much of this meadow hay is used, in better condition in the spring of the year than Maine, New Hampshire and Vermont cattle are, where they have such an abundance of English hay?

What experienced horseman who has a beautiful mare from which he hopes to raise a colt worth one thousand dollars, would send her into the country to be fed on early cut and musty hay?

Almost everybody considers white clover or honeysuckle the best of feed in a pasture. I do know from long experience that this kind of feed will not fatten a creature and will not make so much milk or so much butter, while it is all growing beautifully, and when, as some observers will say, 'your pasture looks as white as a sheet,' as it will after some of the heads become ripe.

I used to think that my cows must be out early to feed, while the dew was on. This may be necessary where the feed in the pasture is short, and all day is required for the animals to fill themselves; but experience has taught me that when I can have as much feed as I should like, and as much as there should always be, that my cows do better not to eat one mouthful of feed in the pasture until after the dew is off, especially in honeysuckle. ASA G. SHELDON.

Wilmington, N. H., June 13, 1868.

For the New England Farmer.

DO BOTS EVER KILL HORSES?

We were not a little surprised to see a statement in the weekly FARMER of June 6, and in the MONTHLY, page 330, from Mr. Stuart's "American Farmer's Horse Book" that "there is no evidence, that, in his normal condition, the bot ever injures the horse's health in the least degree." And again, "as to the popular belief that the bot causes the death of the horse by eating through the stomach," Mr. Stuart says: "although the stomach is often found to be completely riddled by the bots, as the popular expression is, there is good reason to believe the work is done entirely after the horse is 'struck by death.'"

Now, in 1850 we lost a valuable horse, under these circumstances: Early in the fall the horse was turned out to grass in good health, as we supposed, though we noticed that she did not feed quite as well as usual. In the morning the horse was nearly dead. Her suffering must have been intense. It hardly seemed possible that an animal could be altered so much in one night. She appeared to be in the greatest agony; holding up her head, and laying it over on her side, as if conscious of what was the trouble, and appearing as horses are said to appear when they have the bots.

We immediately sent for a horse farrier, who lived near by, but the horse was dead when he arrived. He opened the animal, and inside of the stomach clusters of bots, from the size of a four-pence-half-penny up to that of a dollar, were found so closely together that it was impossible to see any interstices between them, and in perfect circles. Her stomach was literally covered with those clusters, and in every instance they had eaten completely through the inside of the stomach, but leaving the outside covering untouched. In no case had they eaten through that. If they were endeavoring to escape on account of the illness of the animal, or other cause, why did they stop there? The fact that they had eaten their way to this tough skin as evenly as though carved with a knife, showed most conclusively to my mind that the inside stomach was devoured to satisfy the appetite of these parasites, which thus caused the death of the horse.

Will Mr. Stuart say that the horse was "struck by death, and the animals were trying to escape?" Then why did not some of them do so? Why thus uniformly eat their way to the outside covering of the stomach, and no further? Simply because it was not so good as the other part.

Again, says our author, "the cuticular covering of the stomach to which the bot fastens himself by means of two little bearded hooks, is nearly if not wholly insensible, having no more feeling, apparently, than the horse's hoofs. When the animal is in health, it is hard, rigid, impenetrable, and the bot, if ever so much disposed to do so, would attack it in vain; but when death seizes him, this coating becomes relaxed and soft, and begins rapidly to decompose. Then only it is that the bot can or does ever work his way through it," &c. How does Mr. Stuart or any other man know that the inside or cuticular covering of the stomach of a living and well horse is impervious to the bot? Has he or any body else ever been there to ascertain these facts?

We have heard the assertion made before, that the horse is never known to die from the effects of bots. We protest against such wholesale, theoretical assertions, unsustained by facts. From their boldness and novelty they arrest attention, and thus go far to establish a popular belief and error.

The statement that the bot is hereditary with the horse may be true or may not. It may also be true that what we call the bot is only the offspring of the gad fly; but that it cannot penetrate the inner or cuticular coating of the horse's stomach until "after the animal is struck by death," we deny; for what our eyes have seen, and our hands have handled, that we are bound to believe.

There are one or two facts more in connection with this case that perhaps it may be well to give. The horse had been used during the day, and her stomach was empty. Probably the bots, by seizing simultaneously on her stomach, put her in very great distress, which must have caused a great disturbance in her bowels. Her manure, which was to be seen in probably not less than twenty places where the animal had been up and down through the night, was in the first place natural, but changed by regular gradations as it was voided, down to the consistency of mere water. And from a robust, sound, and well-looking animal, she was changed to a mere skeleton. If it had been possible to have taken out all her bowels, I do not think she

could have looked any thinner. And all this the result of a single night's distress and agony.

Of all the animals that God has given to man perhaps there is none more useful or more noble than the horse. How often have we seen him when in distress appeal to us for relief in every way except that of a spoken language. We, as his superiors, ought to know his diseases, and their proper remedies. It is a commonly received opinion that among the ills his flesh is heir to, are bots. But if after the lapse of so many ages, it is still a disputed point whether they are ever injurious, it is surely time the question was settled. I am but an ordinary individual, and generally allow the world to slip and slide as it will, but when I see an idea advanced, contrary to the teachings of experience and analogy, I feel it my duty to protest against its acceptance, and call for more proof and better reasons than appears to have been advanced in this case. JONA. FARNUM.

So. Uxbridge, Mass., 6th mo. 15, 1868.

For the New England Farmer.

NORTH EASTON PLANTING COMPANY.

DEAR SIR:—Your kindly notice of the North Easton Planting Company was joyfully received by us at this time. It gives us strength and courage in this important movement.

In April, we announced our intention to form a planting company upon this most simple and equitable plan, the outlines of which you gave in the FARMER for April 23. We found any quantity of persons ready and willing to invest from one to twenty-five dollars in the stock of this company, with its only two self-constituted officers, *Chief Manager* and *Treasurer;* but seven persons (the requisite number for a legal organization) could not be found with courage to venture their reputation in so humble an enterprise.

Nevertheless a few of us are doing something. We have seven acres of land now planting, and as the people are fast growing into favor with this movement, we shall soon have a permanent organization, and issue our stock certificates for the sowing a good breadth of land this coming fall to winter grain. So that all lovers of good bread can, in the course of the summer save up a few dollars to invest in this and similar companies; and evermore find that in "Our father's house there is bread enough and to spare."

Our outlays, thus far, in planting, have in no instance exceeded our estimate. A strict account is being kept and a full report will be made at the maturity of the crop.

As a testimony of our appreciation of your kindly notice of us, we present you with one of our certificates of stock. It will do to fill up your museum of curiosities if nothing more. By this you will know the value of one dollar invested in our corn plantation, as we shall forward to you your share at maturity.

L. SMITH, *Manager.*

REMARKS.—We most gratefully acknowledge the receipt of the certificate of stock alluded to above. We shall look with interest for our share of the dividends of this new form of co-operative industry, particularly as "Corn with Beans intermixed" remind us of our favorite dish, good old Yankee succotash. The industrial classes in Europe, as well as in this country, are considering and experimenting largely with the co-operative principle. In fact, what more vital among all the principles of free government than that of co-operation? We hope, therefore, our friends will pardon us for copying our certificate, which may still further illustrate the operation of this planting company:—

"CO-OPERATIVE PLANTATION, No. 3, FOR 1868. —For one dollar received, the bearer is entitled to one-fiftieth part of the net income from one acre of land, to be managed and operated by the North Easton Planting Company, the principal crop to be Corn, with Beans intermixed. Dividends will be made principally in the productions, and delivered free to the stockholders residing within a radius of five miles from the plantation, and at a moderate charge to those residing at a further distance. L. Smith, Chief Manager. M. D. Schindle, Treasurer. Location of plantation, Dikeman farm, North Easton."

"Explanation—Plantations, Nos. 1 and 2, Potatoes; 3, Corn; 4, Beans and Squashes; 5, Cabbages; 6, Turnips; 7, Buckwheat. All moneys not expended, either from the sale of crops or from the capital not used, will also be divided."

"Hon. SIMON BROWN."

For the New England Farmer.

VALUE OF FORESTS.

The preservation, growth and culture of the woods or forests of New England are subjects of interest to every citizen. The inclemency of our winters draws heavily upon them for the support of the family fire, while our network of railroads require large quantities of fuel to warm up the iron horse for the work that is required of him.

It is to be regretted that our forests should be destroyed by the wholesale, as they are, and that so little effort is made to keep up the supply. There is a large breadth of worn and exhausted or rough land, unfit for cultivation, that would pay a fair rate of interest, if allowed to grow up to wood. Our forests perform at least a three-fold purpose: first as a means of renovating the soil, and restoring it to something like its primitive fertility; second, their value for timber and fuel; and third, their influence on our climate. From careful observation there can be no doubt that the

volume of water has been sensibly diminished in many of our brooks and rivers within a comparatively brief period. There are many streams which a century and a half ago were capable of turning mills that do so no longer. I have looked with astonishment at the remains of old dams on these streams, and have asked why this great change? At this day they are wholly insufficient for the purpose for which they were once used. I can account for it on no other ground, than the removal of the forest which once bordered them or their sources, and thus allowing the fierce rays of a summer sun to fall on the soil, and giving the dry and parching winds full sweep over the country, which carry off the moisture, &c. to other districts more favorably situated for condensing the humidity of the atmosphere.

Within the writer's memory, the tracks of our thunder showers have changed in a great measure. I can account for it on no other theory than that of the removal of large belts of woods, which has changed the path of the passing vapor.

Open plots in woods are almost always more fertile than exposed fields, probably from the vapor given off by the surrounding atmosphere, and its transmission to the soil by the leaves; also from being better sheltered from cold currents of air, thus enjoying a more equal and higher temperature during the growing season.

On most of our farms there are many acres of but little value for annual cultivation, which, by a very small outlay of labor, could be planted with one or several of our forest trees. In but a few years it would require thinning for fire wood, and the remaining trees could stand longer for timber, or the whole may be removed and the owner would have a renovated soil at but little cost. The writer is fifty-six years old, but he has lived to see saw logs grow from the seed planted since he was fourteen years old. H.

Epping, N. H., Jan., 1868.

For the New England Farmer.

PREPARATION OF LAND FOR WHEAT.

I will mention an idea suggested to me a few days ago in relation to the preparation of land for winter wheat. A piece of old land was nicely fitted with plenty of well rotted manure, harrowed in with the seeds. When this was done the owner, to make the crop sure against winter killing, covered the whole piece with a good coating of straw. After this, he concluded, as he wished to have his piece a little larger, to break up a piece of green sward adjoining, without manuring or straw or rolling the turf down. In ploughing, the furrows ran up and down the slight declivity on which the field was located.

Now for the result. The first piece, although it was the highest and dryest part of the lot was a failure,—being winter killed—while the second was a splendid crop. There seems to be no other way to account for the difference than to suppose that the sward was perfectly surface drained below the roots of the plants by the eight-inch furrows which left no water to freeze about the roots. I think much grass land might be renewed profitably by this method, with care in ploughing to lap furrows carefully and taking the advantage of the descent of the land, if there is any; then give a good top-dressing to be harrowed in with the wheat and stocked down, the first year. The drainage thus secured will favor a good "catch" for the grass, as it prevents the wheat from winter killing.

Diarrhœa or Scours in Cows.

It may benefit some one for me to mention my success in curing a cow that was violently attacked with the scours, which was taking her flesh off rapidly and had nearly dried up her milk. My hired man told me to boil hemlock bark and give her small doses in a bran mash till cured. This cured her in less than three days, and she has been doing nicely ever since. Be careful not to give too much at a dose, as it might prove too astringent or binding.

Uneasiness of Cows in Stables.

Can you or any of the readers of the FARMER tell me the cause or cure for cows that stamp their hind feet violently on the floor while they are stanchioned to be milked. Mine have spells of stamping, as if their feet itched or pained them so that they could hardly endure it. It generally lasts about fifteen minutes, and then they will be quiet again.

Hiving Bees.

I have to acknowledge the timely benefit I have just received in perusing the last FARMER, by way of information in relation to hiving bees, as I have had no experience in this business, and have some about ready to swarm. The above article caused me to realize the fact that we, brother farmers, could benefit each other greatly by imparting such little information as we obtain from our personal experience or observation, for the benefit of others. T. C. N.

Williston, Vt., June, 1868.

REMARKS.—An article on Foot Rot in Cows, in another column, will probably lead you to examine the feet of your cows for this or some other disorder, as the possible cause of the uneasiness you allude to. The exhortation to "do good and communicate, forget not," cannot be repeated too often.

—Mr. Riley, State Entomologist of Missouri, states that the lady birds, those little blessings, are attacking the potato bug in the egg and destroying multitudes in Illinois, Iowa, and Missouri.

CIRCULATION OF SAP.

The late article of our correspondent, "C. N. A.," on the source of the saccharine matter in the sap of maple trees, and on the causes and conditions of its flow, was well calculated to excite thought and inquiry.

In reading the new edition of Waring's "Elements of Agriculture," noticed last week, we found the following illustration of the manner in which food is taken up by the "spongioles" or mouths of the roots of plants, —an illustration, by the way, which we had some trouble in referring to after we had shut up the book, from the want of an alphabetical index to subjects; an omission that we can hardly excuse in any book-maker. We found it at last, however, on pages 36 and 37, as follows:

Take a tumbler, filled entirely full with water; tie over it a bladder, and on the bladder sprinkle a little salt. The bladder becomes moist throughout its entire thickness, and transmits enough moisture to the salt to dissolve it gradually, and as fast as it is dissolved, it passes through the bladder into the water inside of the tumbler. In a long enough time the water can be made, in this way, to dissolve as much salt as though it had been stirred into it without the intervention of the bladder. If we keep the salt soaking wet, as it lies on the outside of the bladder, it will pass through much more rapidly, but if we do not wet it by a direct application of water, enough water will reach it through the membrane to allow it to pass into the tumbler, as above described. The roots of plants contain sap, which is separated from the plant-food in the soil, by a thin film of matter, which constitutes its cell-walls. So long as the water of the sap has the capacity to dissolve more mineral matter than it already contains, it will take it through the cell-walls, as the salt is taken through the bladder. If the plant-food outside of the roots is in a moist condition, it will be taken up more rapidly than if too dry. The moisture of the soil itself, containing mineral matter in solution, passes through the cell-walls to supply the place of that which has been evaporated at the leaves, the matters in solution passing through with the water itself.

We are also glad to see that the editor of the *Boston Cultivator*, who is versed in the science of botany, has let in a few rays of light on the "unusually visible darkness" in which our correspondent thinks the remarks of the editor of the *Maine Farmer* left the subject.

Experiments made by distinguished vegetable physiologists are cited, in which the stem of trees were tapped, at different heights from the ground, for the purpose of ascertaining the points where the sap made its first appearance. In all the cases mentioned the exduation of sap in the spring occurred earlier in the lower than in the upper part of the trunk, tending to show that the *fluid* portion, at least, of the sap comes from the "cold, dark ground."

As to the amount of sap in vines and trees, Keith's Botanical Lexicon, (London,) is given as authority for the assertion that "a small branch of a vine has been known to yield from twelve to sixteen ounces in the space of twenty-four hours; a maple of moderate size yields about 200 pints in a season; and a birch tree has been known to yield a quantity equal to its own weight.

As to its chemical composition, reference is had to "Ann. de Chim." for the remarks that, if exposed to the action of fire, sap emits bubbles of carbonic acid gas, exhales a strong odor of vinegar, and yields by distillation carbonate of ammonia. It combines in all proportions with water, which dilutes and dissolves it when thick and viscid. Alkalies combine with it readily, and saturate its excess of acid. In the sap of *Fagus sylvatica*, Vauquelin found the following ingredients: water, acetate of lime with excess of acid, acetate of potass, galls, acid, tannin, mucous and extractive matter, and acetate of alumina.

But the most satisfactory statement is found in the following quotation from "E. Darwin, M. D., F. R. S.," which we copy entire.

"The ascending sap-juice during the spring season is in some trees so sweet, that it is used in making wine, as that of the birch tree in this country; and sugar is procured in such quantity from a maple in Pennsylvania, that from each tree five or six pounds of good sugar have been made annually without destroying it. (Rush, on Sugar Maple. Philips, London.) This sugar is deposited, I believe, in the sap-wood of the trunk and roots of trees, as in the manna-ash, and is dissolved in the spring by the moisture, which is drunk up by the absorbents from the earth and atmosphere, and forcibly carried on to expand the buds. Its existence in the sap-wood as well as in the root is shown from the pullulation of oak trees, which have been stripped of their bark, and also from the expansion of the eyes of a vine shoot, when it is cut from the tree, and planted in the earth.

This suggests to us the reason why the wood of trees is so much sooner subject to decay, when they are felled in the vernal months; because the sugar, which the sap-wood then contains, soon runs into fermentation, and produces what is called the dry rot; whence the custom has prevailed of debarking oaks in the spring, and felling them in the autumn; and it is probable that the wood of all other trees would last much longer, if it was thus managed, as the growth of the new leaves would exhaust the sugar of the sap wood.

Sweet juices for a similar purpose of expanding the buds of herbaceous plants are deposited during the autumn in their roots, as in turnip, beet, tragapogon; or in the knots or joints of the stem, as in grasses, and the sugar-cane; which like the farina and oil in seeds, and the dulcet mucilage of fruits, and the honey of flowers, were designed for the food of the young progeny of plants, but become the sustenance of mankind!

As the saccharine matter which is thus deposited in the roots, or in the albumen, or in the joints of plants, must be diluted by the moisture absorbed from the earth by their roots, we understand why the leaves of the lower branches of trees are first expanded, as seen decidedly in the hawthorn hedges in April, as these must first receive the ascending sap-juice, as was observed by Dr. Walker in his account of the maple."

FOOT ROT IN COWS.

In some sections this disease seems to be increasing among our dairy cattle. We have heard of many valuable cows being affected with it this season. It does not seem to be confined to any particular season of the year, or method of keeping. A neighbor asked us this morning, June 17th, what he should do for a fine young cow, quite lame with foot rot. She has been in a good pasture three or four weeks, and is in good condition. It has been in some of our herds through the entire winter. Various remedies are resorted to, with more or less success. Oil of vitriol,—sulphuric acid,—is the established remedy in the foot rot of sheep, and we believe seldom fails, when seasonably and properly applied. This is very often used in the foot rot in cows, and though a severe remedy is commonly successful. Blue vitriol, pulverized and sprinkled on the part affected, or made into a strong solution, and applied with a swab, is used extensively. White vitriol—sulphate of zinc—is used, and in mild cases, with good success. The parts should be well cleansed, and the remedy thoroughly applied, and repeated daily until the inflammation and swelling subside, and the parts assume a healthy aspect, and afterward they should be applied occasionally as needed.

Oil of spike, procured from the *Lavandula Spica*, a variety of wild lavender, spirits of turpentine and tar, are among the common remedies, and they are all sometimes successful.

Poultices of bran and flaxseed meal, applied warm, are often useful in allaying the swelling and relieving the pain. The pain is often so great as to cause a good deal of fever, and to dry up the milk. Cows affected with the disease will stand for hours in water in the pasture, where they can have access to it. It probably allays the heat and pain.

After the swelling is abated, any of the above remedies may be used. It will be observed that they are all highly stimulating and irritating to the skin. The oil of vitriol and the blue vitriol are even caustic, when applied in their full strength, which they never should be, unless it is necessary to eat away a portion of dead flesh. The origin of this disease is obscure, and it is a debated question whether it is contagious. When it gets into a herd it is apt to extend, and it often happens that one or more of the cows will be troubled through the whole season, and sometimes they will be attacked a second time.

A Mr. Whitman suggests, in the New York *Tribune*, that it is caused by an insect burrowing under the skin, as the acarus or itch insect causes the itch, and that the proper remedy is one that will destroy the burrowing insect, and prescribes a remedy that is successful in curing the itch, and is the best remedy we have ever found for scratches in horses.

The remedy is the red precipitate, or peroxide of mercury, made into an ointment with lard, one ounce of the powder made very fine, rubbed up with four ounces of lard. This is applied to the part, and rubbed or heated in by holding a hot iron near it. When the disease is between the claws, a string may be smeared with it and drawn between them. One thorough application is generally successful, but it should be repeated until it is effectual. This is also a powerful stimulant, and whether the disease is of insect origin or not, we have no doubt will prove useful. If a more careful investigation should prove the disease to have such an origin, this remedy will be a specific for it. This and other preparations of mercury are the most effectual remedies known for all parasites affecting the flesh and skin of both animals and men.

IMPROVEMENT OF STOCK.

We learn by the Rutland, Vt., *Herald* that Mr. Daniel Kimball, of Clarendon, Vt., having kept his thoroughbred Short-horn bull, Mogul, as long as he thinks expedient to keep one animal, has recently sold him to S. D. Townshend and H. H. Waldo, of Wallingford, Vt. Mogul was bred by L. J. Wright, of Weybridge, is of a red roan, and weighs about 2300 lbs. So well satisfied is Mr. Kimball with Mogul's stock that he very willingly agreed to donate to the use of the Wallingford or some other agricultural association the sum of $500, provided that after the use of Mogul for five years the farmers in that section do not acknowledge that he has benefited their

stock at least $1000. Mr. Kimball was recently in Massachusetts looking for another animal to supply the place of Mogul.

For the New England Farmer.

A PLEA FOR FARMING.

There has been a doleful cry among farmers, both before and since the late war, that farming was an up-hill business,—its prices were low, and labor was high. But I believe that such a mode of reasoning cannot stand the test of facts. In this section of country, prices of farm produce have nearly or quite doubled, since the commencement of the war. Hay $25 per ton, formerly $10 or $12; corn $1.60, once 75 cts.; oats $1, once 40 cts., &c. Not so with labor. Before the present scale of war prices, the farmer had to pay $1.50 per day for good hands in haying, while even now the laborer exacts only about fifty cents more.

Again the field of demand is widening for the New England farmer, to a vast extent. The wailings of hungry millions is borne to our ears on every southern breeze, from cultivators, who, in the days of my grandfather, helped to supply our markets with "Virginia pork," "Southern corn," and "Richmond flour." Now they scarcely supply their own wants. Emigration's tide at the rate of one million and a half a year, is setting westward to consume what otherwise might arrive in our markets. Mechanics and manufactures tending south and west, effect about the same result. Still the same complaint continues,—"labor is so high that farming does not pay." "The fault, dear Brutus, is not in our stars, but in ourselves." "Farming is not honorable!" because the swell, fop or poisonous knave, with dashing horse and fine equipage, covered perhaps, from his creditors, passes the honest farmer in the street with cold disdain, or a grimace, or a sneer, forgetting, perhaps, or never having read what wise old Alexander Pope once said:—

> Honor and shame from no condition rise:
> Act well your part, there all the honor lies.

If any individual, whether lawyer, minister, mechanic, or farmer, is not master of his calling or business, or imperfectly practices it, of course the profession or occupation is dishonored by him.

While the farmer who inherits the paternal acres, ample and broad, continues, by the skinning process, to harvest his waning crops for many consecutive years; while he pitches out the manure of his stalls to the sun and rain, but never replenishes his barn-yard or stables with muck or loam; while he sows no clover seed or plaster to plough in to his exhausted fields; while he suffers his cattle and horses to gnaw the fall and spring feed to their hearts' content; while he denudes the grand old hills of their forests, to obtain money to buy corn and flour of the sunset regions of the West, that should be raised on his own cleared acres, thus paying dividends to western railroad stockholders; while he harnesses up his team once every day or two and visits the village store or post office to hear or talk political news three or four hours, as though the whole "government was upon his shoulders;" and while he is too wise for farmer's clubs, agricultural papers, and book-farming,—no wonder that farming is "dishonorable" and will not pay; or that the sons of such farmers leave the old homestead for the counters of the city merchant, or the workshop of the mechanic, leaving the science of agriculture, the pedestal of the column of national wealth and power thus short of labor.

M. J. HARVEY.

Epping, N. H., 1868.

GARDEN HINTS.

TRANSPLANTING of annuals, tomatoes, cabbage, &c., should never be done when the ground is wet. It is also a bad practice to puddle the roots, that is, to wet and so mud the roots by dipping them in a pail of mud as to cause them to adhere together. Our most successful practice in transplanting is to plant in the dry ground, when the earth pulverizes fine like meal; sift the earth among the roots until the hole is half filled with earth; then fill the hole with water, and as soon as it has soaked away, draw in dry soil to finish and level the surface.

INCREASING THE SIZE OF FRUIT.—While the fruit is swelling, the size of raspberries and strawberries may be increased by thinning out the number on a cane or plant, removing all suckers or newly-forming attached plants, and watering occasionally with manure water.

TOMATOES will bear more abundantly, and occasion the least trouble, if the ends of the shoots, just beyond the fruit, are pinched off. A surface mulch of rotten manure, and if a dry time, frequent watering, well repay in increased size and abundance of fruit.

HERBACEOUS PLANTS, as soon as they have done flowering, may be easily propagated by cuttings. These should be planted in a cold frame in a mixture of sand and loam, and kept shaded until the roots have formed.

ASPARAGUS should not be cut too late in the season, or its value another year will be lessened. A dressing of well-rotted manure lightly forked in should now be given the bed.

FUCHSIAS should be shaded from the midday sun. It is a good time now to make cuttings and propagate.—*New York Horticulturist.*

—Of the $142,000,000 worth of breadstuffs imported by England last year, only $16,000,000 worth went out from the United States.

INDIA GOOSE.

Mr. Bennett describes the India Goose as dunnish on the breast and belly, and entirely destitute of a pouch or dewlap. In size it is a medium between the African and Chinese. It is the most symmetrical of the goose tribe; and if such a thing can be said of a goose, this variety is decidedly graceful. At the time of writing his book he had a single specimen, a male, of which he gives a cut. It was a present from Dr. Bates of Barre, Mass., who says that the gander, when in good condition, weighed 28 pounds. The cut which we give above was electrotyped for us, from the plates for an unpublished work on Poultry and has never before been printed. We have no personal knowledge of the variety, and it appears to be only incidentally alluded to in the books on poultry in our possession, a fact which is not a little remarkable, considering its striking appearance. Mr. Bement says, that "like the Jews and Gipsies, it has not been allowed a place among the natives of any one region," though it must have been domesticated for a long period, and Mr. Willoughby says the old writers called it the Guinea Goose, from a fashion once prevalent of applying the term "Guinea" to everthing of foreign or uncertain origin.

THE CANKER WORM IN MICHIGAN.

We have not heard of the appearance of this insect in any new locality during the present year. Neither does it appear that any special means have been taken to destroy or check it where it has appeared for several years. The colony in the neighborhood of Marshall is still flourishing and gradually spreading. It was mentioned in the report of last year, that some of the trees first attacked were dead, and that others were evidently dying. I am informed that the indications of decay and death are much extended the present year, and that the speedy and total destruction of the orchards which have harbored this insect is now obvious. It would have been better if the suggestion of cutting down the trees and burning them had been adopted. It was evident three years ago, that the profits of the trees were ended. The insect could have

been annihilated then with less expense than it can be now. But even at this late day, the best thing that can be done is to apply the axe and the torch. This would be an effectual and considering the importance of the case, not expensive remedy.—*Mr. Howard's Report of Michigan Board of Ag.*, 1867.

REMARKS.—We are sorry to learn by the same Report that the Colorado potato bug has appeared in the Western part of Michigan. Experiments show that fowls will not eat them. The insect belongs to the order Coleoptera, and therefore is a true beetle, and not a bug. It is four-fifths of an inch long; oval in form; cream-colored, with ten black lines running lengthwise along its back. Prof. Walsh thus describes the larvæ: — "Soft, elongated, six-legged grub; dull Venetian-red color, with several black spots; no wings. Some specimens of the larvæ which I obtained from Wisconsin have two rows of black spots on each side of the body, ten black dots in the upper and seven in the under row."

For several years past this terribly destructive insect has been advancing Eastward some fifty to sixty miles per year, and keeping possession of all the territory once acquired. According to some calculations this bug may be expected in New England in five or six years.

LONG WOOL SHEEP IN FLOCKS.

In reading the report of the Ohio Wool Buyers' Meeting, at Cleveland, I could not help noticing Mr. Muzzy's caution not to rush into the long wool business, since this style of sheep are not adapted to be kept in large flocks. I beg leave to tell Mr. Muzzy that some of the largest and best flocks in England are of the long-wooled sheep, (the New Leicester and Cotswold). And I have never seen any difficulty in keeping a large flock, if there are not too many pastured together; and why won't they do here, if they have proper care and attention?

I am well acquainted with several of the best flocks in Herefordshire, England, and they are of the New Leicester and Cotswold breeds. They are owned in flocks of from fifty to five hundred, and are kept from fifty to one hundred in a pasture, which number I think is plenty together, of either fine or coarse wooled sheep. The flock or five hundred is owned by Mr. J. Davies of Webster Court, near Hereford. They are not a thoroughbred Cotswold, but have a dip of the New Leicester blood, which makes them more disposed to take on fat rapidly, and mature earlier. They averaged a little more than eight pounds of clean washed wool per head, last shearing.

I think any man who will get a good flock of good long-wool sheep, and give them a fair chance, and not cross them with either Downs or Merinos, as two-thirds of the flocks here are, they will say in a short time that they are a profitable sheep to raise, both for mutton and wool.

The demand for the Cotswold sheep in England has more than doubled within these last few years. The reason is that more attention is paid to the breeding of them, and they are not crossed with the Ryelands and Downs so much of late as formerly. I am well aware that by crossing them with the Downs, you can get a very compact carcass, but it is at an enormous sacrifice to the fleece.

I quite agree with Mr. Muzzy, that all should not run into the long-wool business, but if it was double what it is at present, it would not meet a fifth of the demand.—*W. Powell, in Ohio Farmer.*

HAY AND GRAIN.—Clover should be cut before the seed balls are ripe, also orchard grass; while timothy is better after the seeds are formed, and should be cut when the latter are between the milk and dough state. In curing all kinds of hay, turn with the hay tedder about 9 A. M., and if the weather is good it may be cured and drawn into the barn the same day; otherwise it is best, especially with clover, to put it in high slender cocks and cover with hay caps. Clover ought to be cured without much exposure to the sun, and it is well to sweat it in the cock. If your mowing grounds are not in condition for the use of mowing, tedding and raking machines, let not another season pass without effecting this great improvement.

Wheat, rye, &c., should be cut when the grain can be pressed between the thumb and finger without forcing out moisture; the yellowness of the chaff and upper parts of the straw also indicates the harvest. If delayed beyond this time, much grain will be lost by shelling. Grass and grain use up their juices in ripening the seed. Hence grass should be cut early to save juices, and grain if cut in the dough state will mature its seed from the juices in the stalk.—*Working Farmer.*

SHROPSHIRE DOWN CROSSES.—S. M. Moore, Ironton, Mo., writes to the *Rural New Yorker:*

I purchased an imported Shropshire Down ram three years ago, for the purpose of making a cross, for a flock of mutton sheep. The cross more than meets my expectations. Lambs drop in February and March with mottled faces and legs. The ewes encounter no difficulty in yeaning, although some of the lambs weighed 12½ pounds when dropped. The ewes fed on meal and bran, with clover

hay, until grass, and then are turned into the woods upon wild grass, weeds and vines. At five months old I weighed half a dozen lambs. They varied from sixty to eighty-five pounds, —one extra fine one weighing ninety pounds at four months, live weight. I have no doubt they could be made to weigh one hundred pounds at five months, with proper feed and care.

EXTRACTS AND REPLIES.

BRAHMA CHICKENS FOR MARKET.

Mr. Editor:—In the Weekly Farmer of March 28, and in the Monthly Farmer, page 234, I gave you some of the reasons why I prefer the Brahmas to any other fowls.

As I have the past week sold my first lot of early chickens, I thought I would give you some of the figures. My first brood came out the first day of March. I have six hens now sitting, and have, besides the seventeen sold, about one hundred and thirty-five of all ages, from one day to fifteen weeks of age. At first, during the cold weather of February and March, it took nearly three eggs to bring one live chicken, but since the weather has been warmer, I have not lost more than three or four out of a sitting. Last Thursday, June 18, I sold to a dealer who buys for the Boston market, seventeen roosters at fifty cents a pound, live weight, with the crops empty. The largest pair weighed eight pounds. The seventeen weighed fifty-four pounds, or three and three-sevenths pounds each.

The same day I sold mine, a load passed my house that were bought for forty cents each. They were of all sizes, complexions and breeds. Some of them have white skin and legs, and some had skin and legs of a bluish color; and all, except a few white Leghorns, had colored feathers.

Now I think the dealer who bought mine will make more money than the other will on his mixed up lot. The cheap lot may find more purchasers, but mine will go where the buyer is not as particular about the price as the quality.

A pair of chickens weighing six or seven pounds, with legs and skin of a bright gold color, and with the little pin feathers that are too small to pluck, of a color so light that they will not show through the skin, if fattened not over four months old, do not have to go a begging for buyers in Boston this time of year. And as yet, I have found nothing equal to the White Brahmas for making up such pairs of chickens. A. W. Cheever.

Sheldonville, Mass., June 22, 1868.

BLOODY WATER.

I have a cow that was in good order when she calved, April 11th, which is now sick, and appears to be growing worse. Sometimes her water is bloody, at others it has a pinkish hue. Can you tell me what to do for her? A Subscriber.

Richford, Vt., June 20, 1868.

Remarks.—There has been considerable published in the Farmer upon this subject during the last six months, but probably our correspondent is one of our many new subscribers, and may not be able to refer to past articles. We therefore copy the substance of what Mr. Allen has to say on "Bloody Murrain, Red and Black Water," in his new book on "American Cattle."

"The red water and black water arise from a preternatural quantity of blood being determined to the kidneys, and a consequent rupture of some of the minute blood vessels of those organs. This undue determination of blood to the kidneys is very frequently induced by turning cattle, in the spring of the year, into low pasture grounds, or woodland pastures, where the air is moist, and lessens perspiration, occasioning the blood to become too watery. The balance of circulation is deranged from the perspiration being suppressed, and a too great quantity of blood is in consequence determined to he kidneys, which gives rise to the disease. On removing cattle, thus affected from the state of the atmosphere, into a more elevated situation where the air is dryer, the beast will frequently be restored without the aid of medicines. It very often proceeds from cattle being removed from good to bad land, sometimes from their taking cold from the changeable state of the weather, or driving them long distances in the day, and turning them into fields at night, where they take cold. The red and black water is most prevalent in the spring and summer, when the grass is nutritious and produces a plethoric state of the system, or what is commonly called a *redundancy or overflowing of the blood*, which favors an unequal distribution of the blood, when they are affected by the causes above mentioned. The red water is sometimes attended with a lax state of the bowels, and in some instances a considerable quantity of blood is evacuated with the thin dung, and none with the urine.

Purgative medicines are the best remedies in these disorders. The following is recommended as a safe and efficacious purge: castor oil, six ounces; nitre, one ounce; epsom salts, four ounces; whey, or thin gruel, one quart mixed. After this gentle purge, the following to be given: roche alum two ounces; tincture of cantharides, two ounces. To be given in a quart of lime water.

Mr. White observes, that an experienced farmer, whose cows were affected by the red water, gave them half a pint of the juice of the white-blossomed nettle, which speedily cured the disease. When the animal is perceived to be frequently endeavoring to stale, voiding only a small quantity, with considerable pain and difficulty, mucilaginous drinks, such as infusion of linseed and decoction of marshmallows, are most likely to afford relief."

HAY vs. CORN.—EARLY CUT GRASS.

Since the days of canals and railroads, the necessity for New England farmers to raise corn and grain has become less. At no time has the value of our grain crops been equal to the value of the grass. Grain is an exhaustive, while grass is a recuperative crop. Why not cease digging among the rocks, stumps and witch-grass, for a little corn that we can buy with less labor than is required to raise it, and apply our manure directly to the grass crop, at least, such portions of it as have been used for corn? We shall, of course, have less planting and hoeing to interfere with early haying, and more and better hay, with which to pay for the corn we must have. The time usually devoted to harvesting the corn might be devoted to profitable farm improvements. To these add the increase of all

crop that will result from an increase of manure consequent on an increase of hay, and of other improvements, and also the increased value of the farm itself.

Besides the superior quality of the hay made from early cut grass, there are other advantages to be gained by cutting grass early. The fertility of the soil is supposed to be less exhausted. The second crop certainly has a longer time to grow, and if not large enough to be profitable to cut there will be more to protect the roots in winter and to fertilize the fields. Grass will also start earlier the next spring and mature quicker; or if it does not mature quicker, it will yield a good crop of hay earlier, thus often escaping a drought that pinches later grass. EARLY CUT.

Concord, N. H., June 26, 1868.

HORSE MANGER.

At a late visit to Mr. Charles Thrasher's, in Coventry, Vt., whose flock of half-blood Cotswolds is attracting some attention, I was shown a manger that had proved very satisfactory to him, and doubtless would to other farmers who wish to save the orts of the horse. The trough and rack is similar to the usual hotel style. In addition to which about eighteen inches in front is a tight partition or screen rising a little higher than the trough, and forming one side of a box, into which all feed from the rack and trough not consumed by the horse drops, and rendering it almost impossible for a horse to waste any feed. These droppings can be taken out and fed to other stock. Mr. Thrasher uses saw dust for bedding.

End view of Rack.

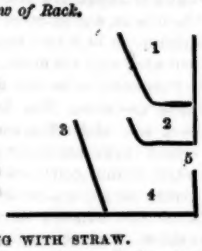
1.—Rack for hay.

2.—Grain trough.

3.—Partition or screen to which horse is fastened.

4.—Receptacle for orts.

5.—Place to take them out if there is a walk in front.



TOP DRESSING WITH STRAW.

Last fall I spread a ton of poor India wheat straw upon my dry grass ground, and now, June 1, the grass is much larger where this dressing was applied. I don't believe in rotting clear straw down to manure in heaps near the barn. The benefit of straw as a mulch on grass is at least equal to the fertilizing properties of its decomposed substance.

Irasburg, Vt., June 1, 1868. Z. E. JAMESON.

CAUSE OF GREASE OR SCRATCHES IN HORSES.

In Monthly NEW ENGLAND FARMER, Jan., 1868, page 54, you give the opinions of several correspondents as to the cause and cure of the scratches. Now I do not believe, as some say, that it is caused by impure blood. Did you ever see a horse's leg sweat? No. Did you ever see what different people call the "issues" or "castors" or "warts" on horses legs? Yes. Well, here is the cause of the disease. These should be kept open by peeling off the hard outside, but not so as to cause them to bleed, in order that the steam, heat, &c., can issue through them as nature designed. If this outlet is stopped the heat or humors of the limb find vent in the thousand little sores or holes that we call "scratches." In every horse troubled with this disease, the castors will be found contracted, or nearly or quite gone; and all through neglect, but not always carelessness, for most people do not know what the castor is for, and some will not believe it, when they are told. If these issues are kept open and smooth from colts up, no horse will have the scratches, even if he is in the mud all the time and not cleaned.

I have no trouble in curing the worst cases of scratches. I take one pint of lard, and half a pint of common tar, mix well by heating moderately. Apply with the hand and rub it in thoroughly and plentifully among the hair, then swaddle. Keep the castor clean and exercise the horse, but not harness or ride him, and wash the sores three times a week with soft water and soft soap, (bar soap is better, but castile is of no use whatever).

Marysburgh, Minn., 1868. J. S. FOSTER.

REMARKS.—Dr. Dadd says that before veterinary surgeons were employed in the British army many thousands of valuable horses were condemned as useless for active service in consequence of the prevalence of this loathsome disease. Mr. Youatt also remarks that it has been driven from our cavalry, and it will be the fault of the gentleman and the farmer if it is not speedily driven from every stable. Still in no veterinary work at hand do we find anything to corroborate the views of our correspondent. Mr. Youatt says, that about the skin of the heel of the horse, in its healthy state, there is a secretion of greasy matter which prevents excoriation, and chapping, and keeps the skin soft and pliable. Too often, however, from bad management, the secretion of this greasy matter is stopped or altered, and the skin of the heel becomes red, and dry, and scurvy; cracks of the skin begin to appear, and these, if neglected, rapidly extend and the heel becomes a mass of soreness and ulceration.

CITY WASTE OF FERTILIZERS.

The sewers of Boston discharge fertilizing materials, which if applied to the soil would be worth more than one million dollars every year. The consideration of this fact should be sufficient to induce wealthy farmers to employ a good chemist to try experiments in order to ascertain whether some large portion of this waste may be saved.

If a small quantity of chloride of calcium in solution is mixed with sewerage, a decomposition instantly takes place. The phosphoric acid combines with the lime forming phosphate of lime, which by its superior gravity immediately settles, carrying with it all mechanical and nitrogenous substances, but leaving in the clear solution above, most of the ammonia. This clear solution may be allowed to flow into extensive shallow reservoirs, containing any kind of earth with 25 per cent. clay to absorb the ammonia. These reservoirs should be used alternately. After one is saturated it should be left to dry, while the other is saturated.

This earth will make a valuable application to sandy soils. The semi-fluid precipitate of phosphate of lime may be allowed to flow out upon sand filters until it is dry enough to mix with peat, when it will make a valuable concentrated fertilizer, which will be worth barrelling and transporting to any distance within two or three hundred miles. An enterprise of this kind would require a capital of a few hundred thousand dollars. Ample grounds (say the brick yards on the Fitchburg railroad, near Charlestown,) capacious pipes, steam pumps, large tanks elevated high enough that their contents will flow where you want them.

I make the suggestion for others. I am convinced, by experiments, that clay is a cheap and

most effectual absorbent of ammonia, but it needs a mixture of sandy loam or muck to prevent its great adhesiveness,—and thus all the fertilizing properties of sewerage may be retained in a tenth part of the original bulk. The question is, will it pay? H. A. SHELDON.

Middlebury, Vt., 1868.

IS SUPERPHOSPHATE SUITABLE FOR CLAY LAND.

I wish to obtain some information in regard to the efficacy of superphosphate when applied to certain soils. I have a lot containing about four acres, a part of which I planted with potatoes last year. This field is of a moist, argillaceous nature, and the crop obtained, with a liberal supply of phosphate, was far from being satisfactory. Whether this resulted from the unfavorableness of the season, the want of virtue in the phosphate, or its unadaptability to soils of this nature, is the question which I now propose for an answer through the columns of your excellent journal. I would also inquire whether phosphate is better than barn yard manure for fruit trees, garden vegetables, &c.? I ask these questions to get the experience of others, rather than make unprofitable or expensive experiments. D. F. WHITNEY.

Spencer, Mass., June 20, 1868.

WHITE SPECKS IN BUTTER.

I wish to inquire through the FARMER, what is the cause of white specks in butter, and how to prevent them. Some persons think they are caused by too strong a current of air upon the cream while it is rising, others by too great heat. A remedy for it will greatly improve the look as well as the quality of the butter. A. B.

Essex, Vt., June 25, 1868.

REMARKS.—The specks ought not to be there. But dairywomen are not exactly agreed as to the cause which produces them. As you remark, some think they are caused by air or heat operating on the surface of the cream, either before or after it is taken from the milk; others ascribe their origin to the mingling of the imperfectly churned cream or "scrapings," which collect on the top and sides of the churn, with the butter just as it is "coming;" while others believe that these white specks are particles of the sour milk taken with the cream in skimming, which become hard like cheese.

The remedies proposed vary of course with the various theories of the different individuals who propose them. Those who hold, that these specks are particles of the dried or heated surface of the cream, recommend measures that will tend to prevent such drying and heating. But in regard to the proper treatment of the cream after it is put into the pot, there is a difference of opinion; some recommending frequent stirrings, while others would add the successive skimmings to the top of the jar with as little disturbance of the mass as possible, believing that the thick sour milk which settles to the bottom should not be mingled with the cream.

Those who regard these specks as dried or hardened particles of sour or coajulated milk, are careful not to allow the cream to remain too long on the milk or in the crock. In a communication in the FARMER, some years since, on this subject, Mrs. "M. E. C.," of Warner, N. H., said, "I have never had the 'luck' to have my butter specked, unless I kept my milk too long before skimming, or my cream too long before churning. The milk should be skimmed before it curdles, and the cream churned before it has either white or black specks." Mrs. S. Pierce, also, in the Monthly FARMER, 1859, says these white specks are "formed in the bottom of a neglected pot of cream;" and ironically advises to "go a-visiting today, and churn to-morrow."

WOUNDED COLT.

I have a valuable four-years-old colt that was turned out in the month of May, with a number of young cattle. I now find he has been hooked by them, and has a hard, large, flat bunch on his belly, covered with flies, the rupture being between the ribs and belly. The sore runs freely, and he eats and drinks well. If you or any of your correspondents can tell me, through your estimable paper, what is best to wash the sore with, and what is the cause of the bunch, and what will cure it, you will greatly oblige E. A. RAYMOND.

Royalston, Mass., June 22, 1868.

REMARKS.—Mr. Allen well remarks, in his new book on American Cattle, that "the best surgeons now regard water as an important auxiliary in treating wounds. Lavements, pourings, wet compresses, &c., are used for the human subject; and water answers equally well for animals. *Simple cut wounds*, when cleansed and dressed with water usually heal without suppuration, especially, if the blood be in a healthy state. There being a tendency in all wounds to fever and inflammation, water dressings, in the form of wet bandages, keep down the unnatural heat, and allow nature to go on with the healing process. The lips of the wound may, generally, be held together with adhesive straps, or a few stitches, and the water application put over. The most dangerous wounds, near some vital part, are frequently healed with the aid of water to keep down the inflammation. We remember a fine mare that stepped on a hoe, the handle of which had been split, leaving a sharp end, and throwing the handle up under her belly, caused a deep, ugly wound, and so lacerating the bowels, that, being in August, it was thought almost useless to attempt saving her. But by dressing the wound constantly with water, the flies were kept out, inflammation prevented, and the wound healed in two months, leaving the animal as valuable as before.

Where the wound is considerable, and important parts are affected, the most decisive means should be speedily employed to keep down inflammation. Immediately after which, a purgative, or relaxative drink should be given, and the parts be fomented with a decoction of mallows, hemlock, or elder, until the inflammation, if any, subsides. *Keep it always washed clean*, and if warm weather, keep the flies away.

After the inflammation caused by the wound has subsided, it should be examined with a probe, in order to ascertain if any matter be confined; as it is sometimes necessary to give it vent by enlarg-

ing the original wound, or make an opening in another more depending situation, that it may run off freely. It may be requisite to apply at this period, the following ointment: common turpentine, six ounces; hog's lard, eight ounces; beeswax, one ounce; melted together.

When taken from the fire, one ounce of powdered verdigris may be added; and the mixture must be constantly stirred until it is cold. Should a lotion be preferred, the following stimulating solution will be found useful: sublimate, twelve grains; tincture of myrrh, two ounces; mixed. One pint of oil of turpentine, to two quarts of sweet oil with good digestive."

SCOURS IN A COW.

I have a cow that scours badly, and I do not know what to do for her. She is an oldish cow, and is thin of flesh, but she eats and drinks well, and chews her cud. I have tried a great many remedies but without success. Now if you or any of your correspondents will inform me what to do for her I will be greatly obliged. L. K.

Fitchburg, Mass., May 3, 1868.

REMARKS.—We regret that this letter, which we intended to have answered at once, unfortunately got at the bottom of the draw, and has been overlooked. Many cases of this kind will yield to a judicious change of diet, such as hay for grass, or a daily mess of dry oats, boiled potatoes, gruel, &c. Dr. Dadd says that this is not a disease, but only a symptom of a loss of equilibrium, which may proceed from improper food, exposure to the cold and rain,—resulting in "a cold." There is no general remedy, or one more effectual in the outset than mucilaginous drinks composed of slippery elm, combined with injections of the same. Warmth and moisture to the surface, with spearmint, or any of the mints, combined with astringents—barberry bark being among the best.

In bad cases, Mr. Youatt, the great English cattle man, says some purgative drink, such as one pound of epsom salts, and half an ounce of powdered caraway seeds, dissolved in a quart of warm gruel, should precede any other medicine.

With cattle, as with the human subject, careful nursing, proper food, rest, warmth and comfort, will do much, and should be tried faithfully before resorting to violent medicines.

A CONTENTED FARMER IN SHREWSBURY, MASS.

There has been so much published lately in respect to uneasy, discontented farmers, both old and young, male and female, that we hope to be excused for making an "extract" from a letter addressed to a person connected with this office. The writer kept a gun store at No 15 Washington street, Boston, for a long time, but as will be seen, he never sufficiently appreciated the great advantages which a city life affords to one's wife and children, to remove them from the country. He says:—

In 1864 I sold out my Boston business and retired to my place in Shrewsbury, which I built in 1834, and where my family resided during all the time I was in business in Boston. I would here say, for the benefit of anybody desiring a home in the country, that Shrewsbury is one of the prettiest villages in all the country around. My farm is located one-fourth of a mile from the village on the main road through Worcester to Boston. I have an orchard of 150 apple trees in prime bearing age, and a row of Rock Maple trees on the street along the whole front of my farm, now grown to a size which makes a rich and beautiful shade in summer for near half a mile in extent. All these trees were planted and the improvements made on this place by myself, for which it a pleasure to receive the commendations of my many friends. I have two acres in market vegetables; one acre in corn, which yielded me last year, though not a favorable season for corn, sixty bushels to the acre, —I have raised eightly bushels; one acre in small grains, and six acres in hay and fruit. My crops last year were 150 bushels cucumbers, 1300 pounds squashes, 6000 of cabbage, plenty of hay, corn, barley, &c., which I value at $800. When my improvements are completed and fruit grows again, I intend to make my ten acres bring me an income of $1200 to $1500. JOAB HAPGOOD.

Shrewsbury, Mass., 1868.

COTTON-SEED MEAL FOR HOGS.

I would like to inquire if cotton-seed meal is considered a good and profitable feed for hogs? I should think that it might be from what I hear of its effect where used for cattle. But I have never heard of any one using it for hogs, and as I am considerably interested in feeding such animals, I ask the above. READER.

Taunton, Mass., June 22, 1868.

REMARKS.—We know as little of the value of cotton-seed meal for hogs as our correspondent does, and shall be glad to receive an answer to his inquiry. Linseed cake, which is largely used in England, in the fattening of horned cattle, is but little used for hogs, as we infer from the remark of Mr. Youatt, who says it is not very clear whether it is as good for hogs as cattle, though it is occasionally given to swine, in small quantities, in connection with food destitute of oil, as potatoes, pea-meal, &c. But as the hog is an *omnivorous* animal he will eat and thrive on almost everything from hay to butchers' offal.

A YOUNG FARMER—DR. MAYHEW'S HORSE BOOK.

While remitting payment for the FARMER, another year, I will say that the market reports, including that on wool, has more than paid me for the paper. I often see inquiries and remarks in it that I would respond to, if I was competent; but I am a young farmer and I feel more and more every year the need of a better knowledge of the scientific principles of my business as well as of other knowledge. But with a single inquiry I close. Where can I obtain a volume of "Dr. Mayhew's Illustrated Horse Doctor, and Management of Horses," and at what price? B. B. S.

Dover, Me., Feb. 25, 1868.

REMARKS.—Not being able to answer the above inquiry at the time the letter was received, we laid it aside for a more convenient season, and hence the delay in publication. The Horse Doctor and the Horse Management are distinct books, with 400 illustrations each, and cost $3.50 each. Herbert's Hints to Horsekeepers, at $1.75, is well

spoken of by many. A. Williams & Co., 100 Washington street, has the latter, and would probably furnish either of Mayhew's, postage paid, on receipt of price. We can assure our correspondent that responses from him will be received with pleasure at any time, and that his plea of want of competency is shown by the letter from which the above is an extract, to be utterly void and of none effect. You are altogether too modest. We shall have plenty of room this summer for what young farmers have to say as to their own experience or as to the practices or theories of others. Free your mind!

A GOOD COW IN A GOOD DAIRY.

I am milking nineteen cows this season, all of which are giving what I call a good mess. Several of them will give from thirty-five to forty pounds of milk per day. I have one cow, of the native breed, eight years old, and raised by myself, which goes so far ahead of the others, that on seeing the hint of your correspondent "F." about steelyards increasing the flow of milk, that I thought I would weigh her milk for a few days. She dropped her calf about the middle of April and has given a large mess ever since, though she has had only a common chance with the other cows. The milk was weighed on platform scales, which are considered correct, with the following result:—

	Morning.		*Evening.*	
June 15	—lbs.	—oz.	25 lbs.	12 oz.
" 16	18 "	0 "	25 "	0 "
" 17	17 "	8 "	— "	— "
" 18	19 "	0 "	27 "	10 "
" 19	18 "	4 "	23 "	0 "
" 20	17 "	0 "	27 "	0 "
" 21	16 "	8 "	24 "	0 "
" 22	17 "	4 "	25 "	8 "
Totals	123	8	177	14

Making 301 pounds and 6 ounces in 7 days; or 43 pounds and almost one ounce per day. On account of my absence from home, the evening mess of June 17th was not weighed. I also weighed her milk at night, June 24, when she gave 27 pounds. Last evening, June 25, noticing that her mess was larger than usual, I found she gave 31 pounds of strained milk; and this morning, June 26, her milk weighed 18 pounds and four ounces; making the two milkings of last night and this morning 49¼ pounds.

"SHOE-BOIL."

I have a valuable horse who had a shoe-boil on her leg as large as a goose egg. Last October I had it cut out, it then being a hard bunch. It never healed, and it is now a raw sore, twice as large as before. What can be done for it? Can you, or any of the readers of your valuable paper, give me, through its columns, any information as to the best method of treating it? Would it do to tie a cord around it and let it rot off?

W. P. Griffin.

Annisquam, Mass., June 21, 1868.

Remarks. — We suppose our correspondent means by "shoe-boil" the swelling which is sometimes caused by the shoe or hoof in lying down. After the part becomes sore and painful the horse will often avoid lying on that side or lie in such a way as not to aggravate the evil. We think he did wrong in cutting out the bunch. He must now do something to prevent the irritation which produced it in the first place, and which still keeps open the running sore. A large cushion is sometimes made, some three inches or more thick in the middle and tapering off at the ends, stuffed with straw or some other material, and buckled upon the leg, between the foot and knee, while the horse is in the stable, to prevent the doubling up of the limb so as to bring the shoe or hoof against the "boil," or irritated part. Will some experienced horseman reply more fully?

CORN COB MEAL.

As I have used cob meal for some twenty years, I wish to corroborate the statement of my neighbor, "T. S. F.," recently published in the Farmer, as to its value, especially when prepared according to his directions. Two years ago I determined to give the cob meal a fair trial, as I had a cow that was to give milk all winter. She was fed constantly with cob meal, and gave the most milk we ever got from one cow during the winter season.

On speaking the other day with one of my neighbors about what was said in the Farmer of cob meal being very injurious to horses, he replied by saying, "Well, according to that doctrine, my old horse, now sixteen years of age, ought to have died long ago, instead of being as smart and fleshy as he is, for he has eaten lots of meal in his life, made by grinding corn and cobs together." In my opinion corn and cob meal is better for a horse than pure corn. Some farmers here are willing to pay a small price for cobs when their own supply is short. Don't waste even corn cobs.

Wm. Wilkins.

Felchville, Vt., June 28, 1868.

MENDING ROADS.

Why is it that highway surveyors will continue the old way of mending the roads, or rather making them worse, by carting and throwing on loam and sand from the sides, instead of digging down the hills and knolls in the roadway, thereby obtaining better material for the road and improving the grade? Some towns have bought gravel for years, to repair their highways, when they had gravel of better quality nearer, in the hills of the highway. Even if a little harder digging, it would seem to be policy to benefit two places instead of one, when it can be done at the same or less cost. Often have I seen the surveyor team gravel one mile and pay five or six cents per load for it at the pit, when better gravel could be had for the taking within forty rods of the place where it was wanted, and lower the grade of the road at the same time. Most towns in New England have plenty of good material for building roads, in the hills of their own roads, although sometimes it might have to be teamed a considerable distance.

Reading, Mass., June 24, 1868. Z.

A GOOD HEIFER.

My neighbor, I. W. Raynolds, of Tunbridge, Vt., has a one-fourth Durham heifer, from one of his native cows, which at twenty-one months of age dropped her first calf, weighing seventy-seven pounds, last April. Mrs. Raynolds set her milk separately the first week in June, making from the cream thereof seven pounds of good yellow butter. The heifer had no feed except grass. O. Foster.

Tunbridge, Vt., June 27, 1868.

WHITE MAPLE SUGAR.

I noticed an inquiry in the Farmer whether sugar can be profitably made from the common White Maple. I used to suppose that it could not.

But some years since, I called on a friend, whose sugar lot, like the Irishman's orchard, consisted of "one scattering tree," and that was a White Maple, and to my surprise they had nice molasses made from that tree. Since then I have tapped the White Maple, when convenient. That tree comprises about one-fifth of my sugar bush, and I consider it nearly or quite equal to the Rock Maple. I have not made any experiments in boiling the sap separately; but I get as much sugar from a given quantity of sap as most of my neighbors that do not have the White Maple. I only wish I had more of the same sort. B.

Wilmington, Vt., June 26, 1867.

AGRICULTURAL ITEMS.

—Milking machines are exhibited in the city, not in the country.

—The dairymen in Western New Yotk, are experimenting with paper boxes for cheese, instead of wooden ones.

—Twelve families out of fourteen in one school district in Bradford, Vt., made this season seven tons and five hundred and fifty pounds of maple sugar.

—Equal parts by weight of white lead and dry sand, mixed with linseed oil to the consistence of putty, makes a good cement for leaks around chimneys.

—The Novelty Machine Works in Chicago manufacture a machine horse-shovel, or scraper, which will load upon wheels a cubic yard of earth in one minute, and is also an excellent street cleaner.

—Two posts split from the same log were set for gate posts, one top end in the ground, the other with the butt; the first lasted seventeen years, the other ten years.

—For the hop aphis a correspondent of the *Country Gentleman* recommends a dusting of plaster of Paris as an efficient remedy, and at the same time an application that is beneficial to the soil.

—As a remedy for mosquito bites, keep a phial of glycerine at hand, and apply freely to the bites. It will relieve the irratation and swelling at once. One application is generally sufficient.

—Five thousand Texas cattle arrived in Champaign Co., Ill., during ten days, ending June 24. Price there of fair fleshed, ten-hundred Texas steers $25 to $30 per head.

—Sober cattle in the meadows,
In the shallow brooklets wading,
Or 'neath alders' grateful shadows
Ruminate with drowsy eyes;
Dragon flies o'er pools are winging,
Busy bees with honey lading,
And the notes of insects' singing
Everywhere in chorus rise.—*Shillaber.*

—In reply to an inquiry for a remedy for a hop-worm about one and one-half inches long, of greenish color, with reddish stripes running crosswise, that seems to originate in the soil, and eats his way up the pith and cuts off the vine, Mr. A. S. Fuller of the New York Farmer's Club, says "the best way to get rid of insects infesting hop roots is to keep skunks, which will find them. The skunk seems to be the natural guardian of the hop root, and there should be the picture of one on the head of every beer barrel." That the supply may be equal to the demand, some one will do well to start a skunk factory at once.

—Four acres of corn south of the Massachusetts Agricultural College were recently hoed in one hour and three-quarters by thirty-eight of the students. No farmer will object to such "hazing" as that.

—The Hagerstown, Md., *Free Press* states that in that place the locusts which are about emerging from the ground, are causing sad devastation among the swine, as the hogs eagerly devour them. A large number of losses of this kind are already reported.

—A correspondent of the *American Journal of Horticulture* says that the roots of Eastern trees run on the surface, while the same trees West run downwards. He says that roots prefer to be near the surface, but must have moisture, and as the West is famous for its summer droughts, the roots are forced to go deep to get their drink.

—A Texan, writing to the St. Louis *Republican*, urging the construction of a railroad from St. Louis to Texas, says that between the Nueces and Rio Grande rivers there are a million head of horned cattle, and ten thousand head of horses and mules. The cattle in that country are being killed for their hides alone.

—The Gamgee Meat Preserving Company have their machinery in working order at Mr. Turner's slaughter-house in Bridgeport, near Chicago, and expect soon to demonstrate to the whole West that the enterprising sons of the soil can not only rear their stock but preserve it and send it any distance by boat, railroad, or Atlantic steamers, to the best markets in the world.

—We learn by the *Maine Farmer* that Mr. Allen Lambard, of Augusta, has lost two valuable calves, and has two others dangerously ill, from the effects of eating or licking some old house paper that was thrown in a corner of their pasture, containing a considerable portion of green color. A medical gentleman who examined the paper said, that a square foot of its surface contained poison enough to kill four men.

—There are in the United States about 6,400,000 cotton spindles, which cost $25 each, or $160,000,000. The capital used to work them is not less than $12.50 a spindle, which is $50,000,000 more. Add to this shops for making cotton machinery and "supplies" $20,000,000, making in all $260,000,000. This machinery works up 16,000 bales of 400 pound per week, making 832,000 bales per year.

—When drinking cold water in hot weather, grasp the glass by the hand, take one swallow at

a time, remove the glass from the lips for a few seconds, then take another swallow; in this way it will be found that the thirst will be thoroughly satiated before half the water has been taken; whereas, if it had been swallowed continuously, the whole contents would not have satisfied the thirst.

—In reply to questions by a correspondent of the *Prairie Farmer*, "Wool Grower" says: Breeding ewes will fatten well at even eight years of age —*if their teeth are yet good.* Merinos fatten all the better for being at least four years old. Much the best plan in fattening breeding ewes is to let them go unbred. Merino sheep have to be fattened in the summer and fall, then grained strongly through the winter to make them keep what they have. Quite old and broken-mouthed ewes can be fattened only on good grass and corn meal.

—Downing states the curl of peach trees is occasioned by the punctures of very minute aphides, or plant lice, which attack the under side of the leaves. It does not materially injure either the tree or the crop, yet it greatly disfigures it for a time. To destroy these vermin he recommends a mixture of whale-oil soap, or strong soft soap and water, with some tobacco stems boiled in it, and the whole applied to the branches from below with a syringe or garden engine.

—A New Brunswick correspondent of the *Country Gentleman* furnishes the following account of a strange freak of a swarm of bees: "Last fall one of my neighbors discovered, while mowing his oats, a colony of bees, which had taken up a lodgment on two thistle stalks, and built comb, and bred there till they had a somewhat globular dwelling containing about a cubic foot of comb. They had no shelter whatever except the thistles and standing grain."

—A correspondent of the *Scientific American* gives this advice to horsemen: Whenever they notice their horse directing his ears to any point whatever, or indicating the slightest disposition to become afraid, let them, instead of pulling the rein to bring the horse towards the object causing its nervousness, pull it on the other side. This will instantly divert the attention of the horse from the object which is exciting his suspicion, and in ninety-nine cases out of a hundred the horse will pay no more attention to the object, from which he will fly away if forcibly driven to it by pulling the wrong rein.

—Pliny, the Roman Naturalist, who died A.D., 79, thus describes an ancient reaping machine: "As touching the manner of cutting doune or reaping corne, there be diverse and sundry devises. In Fraunce where the fields be large, they use to set a jade or an asse unto the taile of a mightie great wheelebarrow or carte, made in manner of a van, and the same set with keene and trenchant teeth sticking out on both sides; now is this carte driven forward before the said beast, upon two wheeles, into the standing corne (contrary to the manner of other carts that are drawn after) the said teeth or sharp tines fastened to the sides of the wheelebarrow or carte aforesaid, catch hold of the corne ears and cut them off; yet so as they fall presently into the bodie of the wheelebarrow."

—The *Utica Herald* says, "There is a looseness in the manner in which awards are made at Fairs which needs correction, and which must be corrected in some way, or the time will soon come when all awards coming from such occasions will be regarded by the public as worthless." This being written in New York applies to our New England Societies only "so far as it goes."

—Mr. Wm. Parry, of Burlington Co., N. J., has a farm of 300 acres, thirty of which are planted with the Philadelphia raspberries, twenty with the Doolittle, thirty of the Nelson blackberry, ten of the Lawton, fifty of the Dorchester and about twenty-five of strawberries. In addition he has a large number of acres devoted to experimenting with new varieties of small fruits, and many more as nurseries of ornamental trees.

—A correspondent of the *Rural World* is in a quandary. His name is William Davis, and he says, "last winter I loaned my broad-axe to a neighbor; afterwards four or five different men called for it, at different times; I told them yes, if they could find it. B. borrowed it; C. called for it; G. got it; H. had it, and W. wanted it. Now, I need it myself—had I better go and hunt it? if so, where shall I look? or had I better buy another?"

—The editor of the *Utica Herald* recently visited the Markham cheese factory in West Turin, N. Y., at which 5114 pounds of milk per day are received from 250 cows. This factory turns out 560 lbs. of cheese per day, and from the whey, which has heretofore been considered of little value, sixteen pounds of butter are made each day, by a process known as the Riggs & Markham. In consequence of the heating of the whey, which is a part of this process, it is claimed that it is even better for feeding purposes, than before the extraction of the butter.

—After alluding to the fact that neighboring farmers occasionally exchange work, a correspondent of the *Journal of Agriculture* thinks it would be well for the men and women folks to do the same. If some men were to do up the cooking, washing dishes, baking, sweeping, dusting, washing and ironing clothes, taking care of the baby and fitting off the larger children for school, they would much better understand the perplexities and fatigue of woman's work, and be more ready by looks and words to express their sympathy for her, even if the dinner for themselves and men happened to fall of being upon the table at the expected moment. And if women better understood the disappointments and annoyances of bad weather, unruly stock, destructive insects, and careless help, they might be more charitable for their cross and fretful husbands.

TURNIPS.

IT IS not necessary to discuss the value of the turnip crop. We take it for granted this is fully settled. The ruta baga, and the purple-top strap-leaf flat turnip, are the kinds most extensively cultivated in New England. The great difficulty in the way of cultivating the turnip is the weeds. It costs labor and time to keep them clear of weeds, and to thin them to the proper distance. Sod land is in general, the best land for turnips because it is more free from weeds. A piece of pasture, or bound-out mowing land, with a deep loamy soil, ploughed up about the first of July, and harrowed thoroughly, is as good ground for turnips as can be found. Let this be marked into furrows by a light one-horse plough, and well rotted manure, or superphosphate be scattered liberally in the furrows,—then throw back the soil that was thrown out by the mould-board of the plough, by means of the same plough, and sow the seed with a drill, after which it is well to pass an iron toothed rake lengthwise of the drills. All manures in which fermentation has not been sufficient to destroy the vitality of weed seeds should be avoided. All the remaining work, except thinning may be done by the cultivator. This should be used three or four times, during the season. Turnips continue growing till November in ordinary seasons. They bear the frosts of autumn without injury. They should be thinned out freely, when the soil is rich and they are growing thriftily, ten inches apart is none too much. We are apt to err in allowing them to grow too thick.

The flat turnip is often sowed among corn at the last hoeing. It grows after the corn is ripe. If this practice is adopted, the stalks of the corn should be cut in good season, to allow the sun to reach the turnips more freely. When land is free from weeds this is a good practice, as it does not interfere with the growth of the corn and costs no labor, but the harvesting. The flat turnip is ready for use in the fall and early part of winter. The ruta baga keeps better, and improves by keeping till February, when the flat turnips are mostly used up. Horses may be readily taught to eat the ruta bagas, and will thrive on them, when not severely worked. They should be fed to them in small quantities at first, chopped fine, and sprinkled with salt and meal.

Cooked and mixed with bran or meal, they make excellent food for hogs. If, owing to the shortness of the season, the corn does not ripen well, what better substitute can the farmer have than a pile of ruta bagas? and with a generous crop of corn, they will not come amiss. The first dull day in hay time, the turnip patch should be attended to. It will pay.

THE CROP PROSPECTS.

We have so little faith in the correctness of the reports of the prospects for crops which are usually published in commercial papers at this season of the year, that we seldom copy them. It is so obviously for the interests of those who wish to buy the incoming harvest cheaply to create the impression of a large supply, that we look with much distrust upon the predictions of an "unusually large crop," "an increase of twenty-five per cent. over that of last year," "the wheat crop of 1868 will be fully one-third greater than that of 1867," "the wheat crop will be immense," "an average of forty to fifty bushels per acre," and similar expressions, made in relation to crops in various sections, which we copy from a single column of a New York city paper, now lying before us.

If we had confidence in the correctness of these reports we would publish them, as prices are always affected by the demand and supply; points on which farmers ought to be posted, as well as the patrons of these widely circulated sheets. But these "big, swelling words" of country editors and city reporters, who dash off their estimates from what they see from a car window as the train rushes past a field, and who may possibly be influenced by a desire to "puff" a particular section, or who may permit the wish for cheap bread to be "the father of the thought" of an abundant crop, need confirmation for our use.

This whole subject of marketing produce ought to be better understood by farmers. There are papers enough in their interest to circulate the facts necessary to enable them to form an opinion as to the condition of the crops and as to the prospects of the market. But how shall these facts be collected? May

not farmers' clubs and associations do this part of the work? If the time and money now devoted to "pure agricultural horse trots" were expended in the collection of these statistics, farmers might soon have reports on crop prospects on which they might safely rely. We commend the following suggestions on this point by an Illinois correspondent of the *Rural New Yorker* to the consideration of our readers:—

If all local (town, district or county) societies would attend to this matter and report monthly or oftener, during spring and summer to their respective agricultural journals for publication (or to their State agricultural societies and the latter to the Department of Agriculture) the object sought would, to a great extent, be attained. With well organized agricultural societies, managed by intelligent and practical men in the farming interest, in all parts of the country, the desired information could easily be obtained and communicated to the agricultural press—provided always that each society should make crop reports one of the special duties of a committee or the secretary. Otherwise little can be accomplished, for "what is everybody's business is nobody's." Certainly agricultural societies and journals ought to work together in promoting the interest of producers, and in our view there is no matter in which a union of their efforts would be likely to prove more beneficial than the one under discussion.

But as "big ships move slow," why may not individual farmers resolve themselves into a "committee of the whole" and furnish their own agricultural papers with more frequent reports as to the weather and crops within their own circle of observation?

WOOL MERCHANTS.

Dr. Randall gives in the last *Rural New Yorker* the names of seventeen firms of wool merchants in New York, and fourteen in Boston who have responded to his inquiries in respect to the principles on which they sell wool consigned to them by farmers and others. Nine of these firms state that they uniformly sell all wool on its merits, and either state or leave it to be inferred that they thus obtain more favorable terms than would be secured under the buyers' rules; three merely state that they uniformly sell wool on its merits; nine declare that they will (meaning, if so directed by consignors,) sell wool in any condition on its merits; two offer to sell wool on its merits, but consider it difficult to sell unwashed or unmerchantable wool favorably; two uniformly do or will sell unwashed or unmerchantable wool on its merits, when it composes an entire lot, or when there is enough of it in a mixed lot to sell by itself—but will not separate out a small parcel from a mixed lot to sell separately,—(this probably means same as next); three sell unwashed, &c., lots of wool on their merits, but avow that they allow one-third discount to the buyer on such wool where it is mixed with washed; two sell unwashed, &c., wool on its merits, but think it generally requires *more* than one-third deduction to make it salable; one sells unmixed lots on their merits—but do not say what they will do in cases of mixed lots.

Not one of the above wool houses, says Dr. Randall, practically adopts the *buyers' rules* in form or essence, and but few adopt any portion of them. This is a striking commentary on that pretence which has been put forward by so many country buyers that the enforcement of their *rules* is made necessary by the demands of the trade!

He therefore advises farmers who are not satisfied with the offers of the buyers who are hampered by any fixed rules to correspond with some wool house and learn their terms for receiving and selling wool, and suggests that farmers whose lots are small unite with their neighbors in making up proper sized lots to command attention. But in doing this let every man or body of men act with their eyes open.

What becomes of the Bumblebees?—In reply to this question, C. V. Riley, the State entomologist of Missouri, says through the *Country Gentleman*, that "they all die off on approach of winter, except a few females who quit their nests and hibernate in any sheltered place they can find. These scattering females are the Methuselahs, so to speak, of their race, and with wonderful single exertion dig the holes in which they lay the foundation for a new colony, by forming their oval, unevenly built cells, and depositing eggs, which produce workers. These soon develop sufficiently to help her, and carry out her plans after she is dead."

—The Urbana (Ohio) *Citizen* says that a farmer of that county has made a discovery of great value to sheep-growers. He has used, with great success, coal tar, for maggots in sheep. During the past season several of his sheep were badly injured, and when other remedies failed to remove the maggots from the wounds, he applied the coal tar, which effected a speedy cure.

From the Turf, Field and Farm.

BOB WHITE.

BY N. G. SHEPHERD.

Half way ripe is the wavy wheat,
Abroad in the fields where it stands breast high;
Soft as a whisper, and strangely sweet,
The breath of the wind as it wanders by;
"Bob White!"
Hark! whose is it, the voice I hear?
Calling aloud in the tall grain near—
"Bob White!"

Hotter each day grows the warm June sun,
A shade more purple the sky's deep blue,
And the bright June roses have just begun
To sprinkle their leaves with an ashen hue;
"Bob White!"
There it is calling, again and again,
Sweet and clear from the amber grain—
"Bob White!"

"What does the little bird say, my son?"
The father asks of his fair haired boy,
Where over the porch the wild vines run,
And the humming bee murmurs his song of joy.
"Bob White!"
Sounding aloud as the voice draws nigh,
And the innocent lips of the child reply—
"Bob White!"

One shrill note and a whirr of wings,
Away in a moment, flying low,
As over the loose wall lightly springs
The farmer lad with his rake and hoe;
"Bob White!"
Whistles the boy, while his big black eyes
Follow the flock wherever it flies—
"Bob White!"

A soft, sleek coat of a darkish brown,
And a speckled waistcoat of lighter shade,
Passing to white where it reaches down,
With breeches of chestnut trimly made;
"Bob White!"
This is he whom we hear repeat,
All day long in the ripening wheat—
"Bob White!"

Two half circles around the throat,
One pale streak on his lordship's crown,
And all over the back of his Quaker coat
Paler streaks of a yellowish brown;
"Bob White!"
This is he who fattens and thrives,
Down in the wheat where he calls to his wives—
"Bob White!"

A famous Mormon is he, I'm told,
Full of love for the softer sex;
With a heart like an eagle's quick and bold,
And a spirit fiery and easy to vex;
"Bob White!"
Is it his own or another's name
That he keeps repeating always the same—
"Bob White!"

A few dried leaves and some bits of hay
Under a tuft of sheltering grass;
Hid in a hollow out of the way,
Where only by chance a foot may pass—
"Bob White!"
Thus he calls now the nest is made—
Thus he will call till the eggs are laid!
"Bob White!"

Yellowish white the brittle shell,
Speckled with brown like his own little breast,
Watched, and tended, and guarded well,
A dozen or more in the homely nest;
"Bob White!"
Far less frequent, and somewhat dry
The voice of our friend, as the days go by,
"Bob White!"

A smart young fellow, his son and heir,
Ready at once from the nest to roam;
Little of trouble and little of care
Brings the boy to the mother at home;
"Bob White!"
Almost silenced the once clear tone,
Now that the season of love is flown,
"Bob White!"

There in the grass where the dew hangs damp,
Ever watchful of any harm,
Back to back in a circular camp,
Ready to rise at the least alarm;
"Bob White!"
Sits from the time the twilight falls,
All through the night, while no shrill throat calls
"Bob White!"

By-and-by when the summer is dead,
And the glowing hand of autumn weaves
Gorgeous pa terns of purple and red,
With gold and brown in the orchard's leaves;—
"Bob White!"
Down in the stubble piping low,
No longer shall call as the bright days go—
"Bob White!"

For the New England Farmer.

HOW RAILROADS BENEFIT FARMERS.

Many of the discoveries in the sciences, and the inventions in the arts, which are now recognized as the greatest blessings to the world, were opposed at first as dangerous to the welfare of the community and destructive of the interests of individuals.

Only some twenty-five years ago, some of the most sagacious men in New England predicted that sad consequences would follow the introduction of railroads in this country. They raised a great hue and cry that the country would be undone; that British money must build the roads and control them; that the hay raised by the farmers of New England would not find sale; that horses would be of very little worth; that wood, butter, cheese, hay, &c., would be brought from Maine, Vermont, and New Hampshire, until our market was glutted, and many more evils, not necessary to repeat, were predicted.

In 1833-4, the Boston and Providence Railroad Company commenced operations, and as the pioneer company, with indefatigable zeal, surmounted every obstacle in the form of bog, fen, swamp, ledge and mountain, and finally united the two cities, and demonstrated to the whole country that railroads were a safe investment, even in the snowy, hilly region of Massachusetts. Lowell and Boston, it is true, had built a road in 1831-2, but as Lowell was a city of spindles, owned by Boston merchants, it was not called a fair precedent. The Boston and Providence having settled the question of maintaining itself with good dividends, &c., immediately other roads sprung up in all directions, and not only have the cities united been signally benefited, but the whole country through which they pass has been dotted with villages filled up with mechanics and manufacturers, and a good home market created for all the products of the farm, instead of carrying them to the distant city to stand till near night fall and finally to be disposed of at such prices as buyers might offer, by taking half pay in goods.

All communities, I suppose, have croakers; certainly we have them. Though we have a

good home market for all our produce, all are not satisfied. Some complain that these companies are making money too fast. Such persons forget that in 1833, the New England press generally invited moneyed men to come forward and take stock in these roads, and that many were shy of subscribing. Now those who entered into the experiment and have been successful surely ought not to be envied. Suppose the experiment had been a failure, and entailed loss on the shareholders, as many roads have done, would these croakers have shared their loss? Every man who has occasion to visit the city is more directly benefited by railroads in the saving of time and expense than most people realize. Not long since as some of these fault-finders were making complaints, an old gentleman made the following statement. In the year 1830 he went to Boston, thirty miles, in a stage coach. The stage went but once a day. He paid $1.50 for passage, 50 cents for dinner, 50 for supper, 50 for bed, 50 for breakfast, 50 for dinner, and $1.50 for passage home; making $5.50, besides two days' time, worth $3.00; a total expense of $8.50. Now we can take the morning train to Boston and stay four hours in the city, and return at noon, for $2.00, and half a days' time, $1.00, making $3.00; a saving of $5.50 by railway.

And thus it is with many other inventions and improvements. Let us count up our blessings, and look on the bright side of things whenever we can. D. P.

Attleboro', Mass., 1868.

THE PERCHERON NORMAN HORSE.

This breed of horses originated in, and now exist in their most perfect form and condition, in *Le Perche*, a district of that portion of France which was formerly known as Normandy, and are clearly a pure breed *per se* We do not mean thoroughbred, but a breed capable of producing and reproducing themselves, *ad infinitum*, unaltered and without deterioration of qualities, by breeding like sires to like dams, without infusion of any other blood, just as is done by Durham, Ayrshire, or Alderney cattle; by setters, pointers, greyhounds; and in a word, by any and all animals of distinct and perfect varieties of the same species.

The points of this peculiar breed are that they are much taller than ordinary horses; their standard is probably from fourteen and a half to sixteen hands high. Secondly, they are very short in the saddle place, and comparatively long below; they are well ribbed up, and round barrelled, instead of having the flat sides and sway backs which are the defective points in most American horses; their heads are short, with the genuine Arabian breadth of brow and hollow of the profile between the eyes and nostrils; their necks are well arched, and sufficiently long to correspond with the general stoutness of their frames; their legs are particularly short from the knees and hocks downward, and although heavily haired they are not shaggy, while they have unyielding, iron-like sinews, and feet apparently unconscious of disease.

A writer in *The British Quarterly Journal of Agriculture*, speaking of this class of horses, says: "The horses of Normandy are a capital race for hard work and scanty fare. I have never seen such horses at the collar, under the diligence, the post-carriage, the cumbrous and heavy voitre or cabriolet for one or two horses, or the farm-cart. They are enduring and energetic beyond description. With their necks cut to the bone, they flinch not; they put forth all their efforts at the voice of the brutal driver, or at the dreaded sound of his never ceasing whip; they keep their condition when other horses would die of neglect and hard treatment."

Mr. Harris, of Morristown, New Jersey, in "Youatt on the Horse," says: "These horses first came under my observation on a journey through France in the year 1831. I was struck with the immense power displayed by them in drawing the heavy diligences of that country, at a pace which although not as rapid as the stage coach travelling of England, yet such a pace, say from five to nine miles per hour, the lowest rate of which I do not hesitate to say, would in a short time kill the English horse if placed before the same load."—*Southern Planter and Farmer.*

A Fine Durham Dairy.—A correspondent who is an enthusiastic admirer of good stock informs us that he was very much pleased with a herd of seventeen cows which he saw in the barn of T. P. Root, Esq., of Barre, Mass. Mr. Root has bred the Durhams with particular reference to dairy purposes, and is not satisfied with a yield of less than forty pounds of milk per day. Some of these cows he was informed had given fifty-six pounds of milk per day. His other stock, including a yearling colt, were very fine, and indicated, in the opinion of our correspondent, a skilful breeder and a good farmer.

—In the course of some remarks on a late trial of cultivators and harrows, the *Utica Herald* says, the somewhat recent application of thills to cultivators and horse hoes must be regarded as a decided improvement. With thills, the machines are kept steadier, while at the end of the row the labor of lifting or throwing the implement into the next row is not half so great as with the old style cultivators, while there is much less danger also of cutting up hills from the sudden starting of the horse.

Ladies' Department.

DOMESTIC ECONOMY;

OR,

HOW TO MAKE HOME PLEASANT.

BY ANNE G. HALE.

[Entered according to Act of Congress, in the year 1866, by R. P. Eaton & Co., in the Clerk's Office of the District Court for the District of Massachusetts.]

CHAPTER XIII.

CHILDREN'S CLOTHING.

Many persons when wishing for a change, or when their garments get a little defaced cut them over for their children; and so when purchasing things for themselves, keep their boys and girls in mind. It is an excellent plan. Not only will parents having this end in view be likely to choose articles that will wear well, but they will take good care of them while in their hands, and so indirectly provide for their proper use when in the hands of others. Thus, drab or grey being the best color for boys' clothes, a father's pantaloons and vest of this shade will, with little trouble, furnish enough material for making his son a good suit of jacket and trousers, when they are too shabby for his own use; or, his brown sack may be metamorphosed into such a nice overcoat that the child himself will see that it is better than the "boughten" one which a proud schoolmate ostentatiously displays. The fabrics for summer wear, except tweeds, cashmeretes and nankeens, are seldom substantial enough for this second wearing. For girls, a mother's brown and white valencia, blue thibet, green and white delaine, blue or buff gingham or lawn, after washing and ironing—the cotton-and-wool and cotton goods starched a little—will be just as good and as handsome as new; and her gray or brown sack can be cut, and contrived, and turned to suit successively half a dozen daughters.

Don't make dolls or puppets of boys and girls by dressing them like miniature men and women, as is too much the custom—keep them children as long as you can. There is nothing more charming than the ingenuous simplicity of childhood, and nothing more disagreeable than the assumption of grown-up airs, which always follows grown-up dressing. Be even more fastidious than if choosing for yourself when deciding of what fashion to make their dresses, and keep them as much as possible independent of fashion's changes.

There need be no distinction between the dress of a boy and that of a girl, until the child is old enough to be trusted out of the house alone. Then the boy's low-necked and short-sleeved gown may give place to a frock and trowsers. Two breadths of single width cloth—valencia, lyonese, thibet or cashmere, or cashmeret, gingham, nankeen, or calico for summer—either plain or small plaids or stripes, make the frock body. Take a measure around the throat, and around the chest and the shoulders, and cut the neck and the slope of the shoulders to correspond with these. Bend the elbow to measure the length of the arm, and cut the sleeve like that of a man's coat or make it straight and gather it into a wristband: make the arm-size loose, and let the sleeve enter it straightly—but not tight. The frock should reach to the knee—the edge hemmed to the depth of two inches. It should be bound with a narrow straight collar at the throat and be buttoned down the front; a belt of the same material having a stiff lining, or a stout leather belt, worn with it. This dress for winter should be lined throughout with cambric. A stout silesia waist—double or lined—fitting the form well not tightly—should be worn under this,—to which the trowsers—plaited into a narrow belt—should be buttoned;—the trowsers also need lining, and wear better to be rather loose, and long enough to reach the ankle. As a boy gets older make these trowsers of tweed, cassimere, or doeskin; but retain the frock till he is at least six years old. Then he will want a jacket for his trowsers,—similar in form to a woman's garibaldi jacket, and made of *men's* cloth, like the trowsers. Following this, at eight years, may be a straight jacket, cut long enough to go over the hips, and made to be left open in front showing a vest,—or, rather, the waist of the trowsers buttoned in front and lying over the belt of the trowsers in imitation of a vest; this waist-front must be of the same material as the jacket, and like that, lined with silesia and buttoned with strong buttons. But young America is not satisfied with this a great while—he delights to spread himself. Spurning these limits you must be ready to supply him with a "real, true" vest and "suspender-pants," to wear with his jacket, by the time he is ten, or he will feel that he is debarred of his rights. Yet if you wish to keep him back a little, you can accomplish it by establishing a law similar to that which ruled the damsels of olden time, when no maiden could be married till she had spun and woven the cloth for her bridal out-fit, (hence the name spinster for unmarried women), saying that no suspenders can be worn till they are knit by him who wishes to wear them. They are just the simplest things to knit, of cotton or cotton-and-wool—(sometimes called angola) yarn, and quite elastic and strong. Make them an inch and one-half wide and three-quarters of a yard long. A button hole is knit in each end of both suspenders by dividing the stitches, after one inch has been knit, and taking them on two needles and knitting it in two parts for about an inch, and then taking all the stitches again upon one needle and going on straightly with the work till within two inches of the end when another button hole must be made before finishing.

Still the march is onward and upward—he cannot be repressed—the jacket is but the chrysalis

to his expanding powers. Just as you are getting used to the tiptoeings and the chest-dilatations brought forward by "Jackin-galluses," you have forewarnings of sacks, and box-coats, and even of "swallow-tails," till, unless you are of a very cool and conservative disposition, you find yourself some fine morning on the way to the tailor's for a pattern by which to cut one or other of these delectable garments; and, you have lost little Johnnie in the tall young man who proudly offers you his arm when he dons the new garment for the first time.

Boys' hats and caps of straw and felt should be kept in order according to the directions given for the care of men's hats, in Chap. VII. Straw and palm-leaf hats unless well bound with galloon or twilled tape will soon get "used up!" they need cleansing and pressing;—this can be done by sponging them with borax soap suds, rinsing in clean, cold water, and when half dry pressing, either on a block of the desired shape or on a tin pail, or pan, covered with layers of cloth. If they are very yellow after washing, cover with a mixture of sulphur and cold water, (made about as stiff as thick paste), and hang them in the sun for a few hours before pressing. Sometimes they need a second application of the sulphur-paste. This is an easier and safer way than to smoke them over slowly burning sulphur in a barrel or box where they are hung and then covered over air-tight, as is commonly practiced.

Very good hats for boys can be made by covering a straw hat, or a pasteboard frame that copies its shape and size, with cloth cut from the remnants left when making jackets or trousers. Line them with cambric, bind with galloon, and also fasten a band of galloon around the crown. To make a cap: measure around the forehead, and make a band of this size, one inch and a half wide, from layers of cotton cloth, pasted together; then from stiff paper make a ring of the same width, the shorter edge of which will fit this band, and, unless you wish for a perfectly flat cap, shorten the longer edge of this ring six or seven inches by taking out gores at regular intervals. For a top to cover this, cut a round from stiff paper. These are the patterns by which to cut the woolen cloth of the cap; they are also the frame to which it is attached to keep it in shape. Line it with cambric to which a little wadding is tacked or quilted, bind the edge with galloon, and put around it a fold of cloth fastened with a knot of ribbon,—in winter substitute fur for the fold of cloth, if you choose. Quite a pretty cap is made by using a headband two inches wide and fitting a surface piece directly to the top of it,—the circular being formed of six or eight equal pieces meeting in the centre and ornamented there with a button. Give it the same lining and fold and binding as the other cap. If you wish for a visor to the cap, as a protection for the eyes, cut from paste-board a crescent, whose inner edge is one-third the length of the head-band and which measures one and one-half inches across the centre, then cut a covering for this from the same material of which the cap is made, and a lining from kid or stout silesia. Stitch its inner edge to the head-band and bind the outer with galloon.

Men's fur caps, after they are too much worn for their own use, may be cut over for their boys, or may be made into neck-ties or collars. The making up of these things is simple,—the only trouble to be overcome is in piecing and sewing the fur;—for it often happens that the pile is so worn off that the skin is bare in some places. The only way to remedy these ugly spots is to cut them out and fit in nice, well-covered pieces. And this cutting and fitting is very careful work. But anybody can do it, if willing to take pains and to use a little patience. Cut the skin on the *wrong* side; slip the point of your scissors under it so closely as to cut it with short clips and yet not to touch the fur—not a hair of which should be started. To fit a piece—find out which way the pile (or fur) naturally lies by passing your hand over it; the fur of the piece to be inserted must fall the same way, and it must also match the color and natural shading of the portion to which it is fitted. Having cut it according to these directions, the edges meeting exactly, without puckering, sew them together with strong thread, in flat overstitch. Be sure that you sew nothing but the skin—not a particle of the fur should be taken by the needle. Furs are lined by sewing the materials to the edge of the skin, the pile—the fur itself—standing untouched. A little wadding is generally placed between the lining and the skin. Muffs and women's fur capes may be repaired and made over in this way for boys or girls.

Girls' common hats should be of straw or felt, simply trimmed. When of these materials they can be altered by a little ripping or cutting, which the wearers by the time they are twelve years old, ought to be taught to do,—or rather, which most girls of that age are ingenious enough to do without teaching. After that age they will find much pleasure in fabricating them of materials left from their best dresses; and as they get older will want to undertake bonnets in order to display their taste. Straw and felt are the best materials for both bonnets and hats, because they can stand all weathers, and can be so easily altered. If kept for Sunday and other particular occasions, for one season, they do not seem unsuitable for everyday wear the next; which is not the case with those made of other goods. Palmleaf hoods (from their form sometimes called Shakers) are excellent for those who are exposed much to the sun,—they need a gingham cape, and a bonnet of the same shape, made entirely of gingham, lawn, or pique, is quite nice for very small girls; the bonnet being kept in form with stiff cords or narrow strips of whalebone.

Little girls' dresses should be made with

straight, or with what are called infants waists—though the sleeves ought to be long in winter—until they are six years old. Directions have already been given for making these waists. Three breadths of common width material are sufficient for the skirt. It should reach one-third-way between the knee and the ankle. Hem it, face it, and plait it at the belt, if of thick material; gather it, if of thin. Fasten the dress behind. These are much easier to fit, and quite as pretty, besides being more durable and less easily soiled than the casaque style now much in vogue—it is almost impossible to get a neat and at the same time an easy feeling dress of that style for any child. Dresses for girls from six to twelve should be a little longer in the skirt, and this may be gored. The waist, which is still fastened behind, should be biased in front to fit the form. The best way to manage the dresses of children during the awkward time between the ages of twelve and seventeen is to allow for much enlargement and lengthening, and to do the best you can to promote a graceful appearance by gradually introducing them to the styles suited to persons of mature life. For this purpose spencers, jackets, and such undecided garments, to be worn with detached skirts, or over waists, are very suitable. Measure for and cut these dresses as in making those for women. The waist linings of girls', and women's dresses also, are kept much more neatly if a waist-protector made of white cotton cloth is basted within them. They should reach from the throat to below the armsize. Form them like the upper portion of the waist, and hem them. They should be taken out and washed very often.

While hoops continue in fashion, it is well to use them, but do not adopt any conspicuous style; and never put them on young children, and never wear them, nor consent to their being worn, without shoulder-braces or supporters. Overskirts should neither be of gaudy colors nor of showy designs—such things are sure signs of incorrect taste;—there are now to be purchased at very moderate prices many neat and modest styles of skirting, suitable either for summer or winter wear. Do not allow your daughters nor yourself to wear white skirts in wet weather or in sloppy walking,—the old-fashioned drab or stone-colored moreen is best for such times. Mothers who care more for the health and long life of their daughters than for their pride in the acquisition of an unnatural, yet fashionable form will forbid the use of corsets, or stays,—providing for them in their stead waists of double cloth or jean, cut like a dress lining—only a little lower in the neck. Bind the armsizes and the neck of these garments; face the edges of the fronts, and also the lower edge, to the depth of an inch; fasten them with buttons in front, and set half a dozen buttons at equal distances along the lower edge,—by these the belts of skirts may be united to the waists.

The suggestions in regard to trimming and ornamenting women's dresses are applicable to the finishing of children's garments; not only for the reasons laid down in a previous chapter, but because of the frequent washing to which boys' and girls' clothing is necessarily subjected. Braids, ribbons, gimps, fancy buttons, and embroidery, cannot be removed at every washing, and the consequence is that many articles of attire are greatly injured, if not ruined, by the colors of these things soaking or running into the tissue of the dress, or by their shrinkage drawing the garments into uncomfortable and unsightly shapes; while the trimmings themselves are, as Mrs. Maguire would say, a sight to behold. If anything of the kind is used don't go beyond a little white cotton braid for nankeens or ginghams or calicos, or worsted braids, of whose colors you are sure, for delaines, valencias and similar goods, and these must be shrunken, as directed in Chap. VIII, before they are used, As a general thing, children's garments when new are not put on immediately and worn every day; as a best or Sunday suit they are kept for special occasions, and so these fineries look well enough a good while. But when the clothes are taken for common use, being raised above the surface of the material they are quickly soiled, and are very troublesome to the wearer by catching and rubbing against everything,—which, of course, soon spoils them.

Children's clothing should be watched even more carefully than that of grown persons, lest it get beyond repair; one day's wear, or merely one romping frolic, after a hole has started, will sometimes completely destroy a garment; and you will need to use as much care in its mending as for your own, for they are observant of such matters, and are often more mortified by a patch being made too apparent than by wearing the dress in rags—not every boy is like one that I know who wanted his mother to put "squares" on his trousers' knees because his playfellows had them. Many would prefer that she should turn them around before such things became necessary, so that the knees should have means of keeping decent as long as the rest of the trousers. And this turning the back to the enemy is no cowardly manœuvre, nor yet a difficult one. This is the way to perform it: Cut each leg of the trousers in an exactly crosswise direction from the lower corner of each pocket to the top of each inside seam, and then reverse them,—bringing the backs front,—stitch them in that position, rant the seams, and then press them nicely. These new knees should be lined carefully as directed in Chap. VII.

Yarn and worsted comforters, caps, hoods, scarfs, or shawls, when very much out of fashion, may be ravelled, the yarn reeled, or folded, into skeins, and then washed with soft soap in warm water, dried, the badly worn taken out, and the good knit again into new shapes—and thus make a great saving in a large family.

There are many ways in which both boys and

girls can make themselves useful about house, and at the same time find much happiness, even if school or its lessons require most of their attention. In order to become "handy," or skillful, in this work, they should begin quite young and gradually increase their assistance, the boys till they are old enough to work at more laborious occupations, the girls till they are capable of superintending the household. To perform these little services with ease and dispatch they must be properly dressed. If they cannot take off school dresses, boys should have overalls, or loose over-jackets, or frocks and trousers, like their father's; the girls, sacks and aprons like their mother's, or else loose and long sleeved tires. Make also for the girls, aprons to cover the front of the waist and skirt, to put on when at play, or for school wear. Gingham, or brown linen, are the best materials. Bind them neatly with their own or a contrasting tint, or trim their edges with a few rows of braid.

I had nearly forgotten to mention the bit of lace, or the little linen collar, with its bright ribbon knot, which the larger girls will always like to wear about the neck; and the plain, straight collar of linen which may be basted into the neck of a boy's vest or jacket, to be tied with a ribbon. These give a finish to their attire which should never be omitted. But, *jewelry*,—boys and girls should never be disfigured by anything that bears that name,—its use by them would be as unnecessary as to gild refined gold.

Some mothers believe that the art of keeping a neat appearance comes by nature. They say—"Dirt never sticks to Johnnie, no matter how he is exposed to it, but Will is always in a mess. Jenny's dresses are never untidy, and last twice as long as Mary's, for whose clothing every latch seems a magnet and every nail too." Now, according to the old adage, "habit is second nature," they are right—in a measure. Habits of care and neatness are formed early in life, so that children should be helped to acquire them. In the first place by the indirect influence of care and neatness in the management by others of all matters connected with their home-life. In the second, by having in charge, under the supervision of their parents, as soon as they are old enough, the drawers or closets that hold what clothing of theirs is not in actual use; and, in the third, by being taught to clean and to mend many of their own things, and to do it well. For instance—a boy of six years and older should brush and sponge all dust and spots from his clothing every morning, and also black his boots and shoes. And a girl should remove all traces of soiling from her dress, and from the dresses of smaller children, and point out to her mother's notice, if she cannot mend, rents and bracks in her brothers' as well as in her own clothing. When she is ten years old she should begin to assist in mending,—of course she has helped in making all sorts of apparel ever since she was five years old. Thus many a housewife's cares would be shared, and her burdens lightened, while the children are acquiring the means for making their lives beautiful and happy.

Before leaving the subject I wish to say a few words about faithfulness in needlework: Do all sewing, not only for yourself, but for your husband and your children, (which distinction is too often made) strongly, nicely, and neatly. Don't be afraid of setting too many stitches in the seams of a garment, nor of spending too much time in setting them properly. Let your work be such that you will never be ashamed to have it examined, in fact something that you will be pleased and proud to have closely scrutinized. In this way you will help to counteract the popular opinion in relation to woman's work; for much is said of her want of thoroughness in all her undertakings, and if you are faithful in this department of your labors you will be likely to carry that faithfulness into the performance of other duties.

In concluding, let me give you the words of Miss H. E. Lunt, the author of an excellent essay entitled "A Woman's Talk About Clothing": "These items considered in themselves are trifles, but they are such trifles as make up the sum of home-life. On the faithful performance of small duties, a great measure of the comfort, integrity, and happiness of families depends. And in temporal, no less than in spiritual concerns, is the reward of having been faithful over a few things."